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Managing Reality

Book One

Introduction to the Engineering and Construction Contract

Bronwyn Mitchell and Barry Trebes

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In this document, except where the context shows otherwise, words in the singular also mean in the plural and the other way around and words in the masculine also mean in the feminine and neuter.

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Preface

Now more than a decade on from its initial formal introduction (1st edition 1993), the NEC form of contract remains radical in its ethos and contemporary in its management principles for delivering successful projects in the business environment of 21st century construction. Although conceived in the mid-1980s, in what could be described as a decade of success and excess, with a construction industry racked by conflict and confrontation, the NEC owes much of its current widespread and growing usage to the deep recession of the early 1990s, which forced the construction industry to rethink its approach and performance, as much from a need to survive as from a desire to improve.

It is generally recognised and accepted that Sir Michael Latham's *Constructing the Team*, published in 1994, and Sir John Egan's *Rethinking Construction*, published in 1998, were the two main catalysts and energisers of change and improvement within the construction industry throughout the last decade of the 20th century and into the 21st century. Arguably the NEC was the third key driver of cultural reform and management discipline; indeed the NEC was formally recognised by Latham as being the contract form which, more than any other, aligned to his vision for future construction and Egan similarly embraced the NEC as part of his movement for innovation.

Usage has brought with it practical experience and accordingly the thrust of this book is about dealing with the reality of real-life projects. The authors have a combined knowledge and hands-on experience of NEC-managed projects spanning some 20 years and have therefore written the book with the specific purpose of advising and assisting those who would wish to use or even those who already do use the ECC, on the concepts of modern contract practices, procedures and administration.

This book is about 'how to': how to manage the ECC contract and how to administer it. As such, it does not attempt to give a legal treatise or a blow-by-blow review of each and every clause and certainly is not a rehash of the NEC/ECC Guidance Notes. It is intended to be complementary to other publications, which give excellent theoretical and legal perspectives. This book is about managing reality.

Although now regarded as a 'mature' form of contract the ECC is still relatively young when compared to more traditional forms. Therefore, even with current practitioners, experience will vary both in duration and depth. With this in mind the book has been consciously structured so as to be presented as a five-part book-set that covers the needs of the student professional or prospective client, through to the novice practitioner and experienced user. It provides a rounded view of the ECC, whatever your discipline, on both sides of the contractual relationship and is aimed at enabling everyone to realise the business benefits from using the NEC suite of contracts generally and the ECC in particular.

Since the NEC's official launch in 1993, adoption and usage of the NEC, renamed *Engineering and Construction Contract – ECC* in 1995 (2nd edition), has grown, such that it is now the most frequently used contract form for civils, transportation infrastructure and utilities works and is increasingly the preferred form for building construction projects. The latest edition of the contract (NEC3) was issued in July 2005.

The wide acceptance of the NEC generally and its elevation in stature as the preferred contract form is further reinforced by the Office of Government Commerce's endorsement of the third edition (NEC3). These five books take account of the changes introduced to the contract within NEC3.

Foreword

As almost the first UK client to use the NEC, even in its consultative form prior to its launch in 1993, I believe *NEC: Managing Reality* to be a welcome addition to the construction bookshelf: an essential introduction to the NEC for the prospective 'novice' practitioner and an excellent *aide-mémoire* reference book for the regular user of this form of contract.

The joy of this new book is that it brings together a wealth of practical expertise and knowledge from two of the UK's most experienced NEC practitioners written in a style that keeps faith with NEC principles of clarity and simplicity, while respecting differing levels of knowledge within its potential readership.

I have always believed that choosing the contract form is as much a business issue as a construction decision and that business success only results from good management. Certainly this book gives emphasis to the ethos of managing for success rather than the reactive debate of failure. It imparts knowledge, understanding and practical experience of the Contract in use and equally stresses the roles, responsibilities and discipline of the management procedures that apply to everyone. I particularly like the five-module format, in that it presents itself in readable, manageable chunks that can be readily digested or revisited whatever the reader's previous experience of its use.

This book educates, giving guidance and confidence to anyone dealing with real contract issues, following both the spirit as well as the letter of the Contract. It is arguably the most comprehensive practical treatise to date on how to manage and administer the ECC. It is a must for the professional office. Every 'home' should have one.

David H Williams, CEng, FICE
Chairman, Needlemans

(*Formerly Group Construction and Engineering Director BAA plc;*
founding Chairman, NEC UK Users Group: 1994–1997)

Introduction

General

This series of books will provide the people who are actually using the Engineering and Construction Contract (ECC) in particular, and the New Engineering Contract (NEC) suite in general, practical guidance as to how to prepare and manage an ECC contract with confidence and knowledge of the effects of their actions on the Contract and the other parties.

Each book in the series addresses a different area of the management of an ECC contract.

- Book One – NEC Managing Reality: Introduction to the Engineering and Construction Contract
- Book Two – NEC Managing Reality: Procuring an Engineering and Construction Contract
- Book Three – NEC Managing Reality: Managing the Contract
- Book Four – NEC Managing Reality: Managing Change
- Book Five – NEC Managing Reality: Managing Procedures

- *Book One (NEC Managing Reality: Introduction to the Engineering and Construction Contract)* is for those who are considering using the ECC but need further information, or those who are already using the ECC but need further insight into its rationale. It therefore focuses on the fundamental cultural changes and mind-shift that is required to successfully manage the practicalities of the ECC in use.

- *Book Two (NEC Managing Reality: Procuring an Engineering and Construction Contract)* is for those who need to know how to procure an ECC contract. It covers in practical detail the invitations to tender, evaluation of submissions, which option to select, how to complete the Contract Data and how to prepare the Works Information. The use of this guidance is appropriate for employers, contractors (including subcontractors) and construction professionals generally.

- *Book Three (NEC Managing Reality: Managing the Contract)* is essentially for those who use the contract on a daily basis, covering the detail of practical management such as paying the contractor, reviewing the programme, ensuring the quality of the works and dispute resolution. Both first-time and experienced practitioners will benefit from this book.

- *Book Four (NEC Managing Reality: Managing Change)* is for those who are managing change under the contract; whether for the employer or the contractor (or subcontractor) the management of change is often a major challenge whatever the form of contract. The ECC deals with change in a different way to other more traditional forms. This book sets out the steps to efficiently and effectively manage change, bridging the gap between theory and practice.

- *Book Five (NEC Managing Reality: Managing Procedures)* gives step-by-step guidance on how to apply the most commonly used procedures, detailing the actions needed by all parties to comply with the contract. Anyone administering the contract will benefit from this book.

Background

The ECC is the first of what could be termed a 'modern contract' in that it seeks to holistically align the setting up of a contract to match business needs as opposed to writing a contract that merely administers construction events.

The whole ethos of the ECC, or indeed the NEC suite generally, is one of simplicity of language and clarity of requirement. It is important that the roles and responsibilities are equally clear in definition and ownership.

When looking at the ECC for the first time it is very easy to believe that it is relatively straightforward and simple. However, this apparent simplicity belies the need for the people involved to think about their project and their role and how the ECC can deliver their particular contract strategy.

The ECC provides a structured flexible framework for setting up an appropriate form of contract whatever the selected procurement route. The fundamental requirements are as follows.

- The Works Information – quality and completeness – what are you asking the Contractor to do?
- The Site Information – what are the site conditions the Contractor will find?
- The Contract Data – key objectives for completion, for example start date, completion date, programme – when do you want it completed?

The details contained in the series of books will underline the relevance and importance of the above three fundamental requirements.

The structure of the books

Each chapter starts with a synopsis of what is included in that chapter. Throughout the book there are shaded 'practical tip' boxes that immediately point the user towards important reminders for using the ECC (see example below).

> Clarity and completeness of the Works Information is fundamental.

There are also unshaded boxes that include examples to illustrate the text (see example below).

> Imagine a situation in which the *Supervisor* notifies the *Contractor* that the reinstatement of carriageways on a utility diversion project is not to the highway authority's usual standards. However, the Works Information is silent about the reinstatement.
>
> Although it is not to the authority's usual standard, it is **not** a Defect because the test of a Defect is non-conformance with the Works Information. In this situation, if the *works* need to be redone to meet the authority's requirements, the *Contractor* is entitled to a compensation event because the new requirements are a change to the Works Information.

Other diagrams and tables are designed to maintain interest and provide another medium of explanation. There are also standard forms for use in the administration and management of the contract together with examples.

Throughout the books, the following terms have been used in a specific way.

- NEC is the abbreviation for the suite of New Engineering Contracts and it is not the name of any single contract.
- ECC is the abbreviation for the contract in the NEC suite called the Engineering and Construction Contract.

The NEC suite currently comprises the

- Engineering and Construction Contract
- Engineering and Construction Subcontract

- Engineering and Construction Short Contract
- Engineering and Construction Short Subcontract
- Professional Services Contract
- Adjudicator's Contract
- Term Service Contract
- Framework Contract

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Series Contents

The following outlines the content of the five books in the series.

Book 1 NEC Managing Reality: Introduction to the Engineering and Construction Contract

Preface, Foreword, Introduction and Acknowledgements
Series Contents, Contents, List of tables, List of figures

Chapter 1 Introduction to the Engineering and Construction Contract, concepts and terminology

Synopsis
This chapter looks at:

- An introduction to the ECC
- An identification of some of the differences between the ECC and other contracts
- A brief outline of differences between ECC2 and ECC3
- An outline of the key features of the ECC
- Conventions of the ECC
- Concepts on which the ECC is based
- Terminology used in the ECC
- Terminology not used in the ECC
- How the ECC affects the way you work

Appendix 1 Summary of differences between ECC2 and ECC3

Chapter 2 Roles in the Engineering and Construction Contract

Synopsis
This chapter describes the roles adopted in the ECC including:

- How to designate a role
- Discussion of the roles described in the ECC
- Discussion of the project team
- How the ECC affects each of the roles

Appendix 2 List of duties

Book 2 NEC Managing Reality: Procuring an Engineering and Construction Contract

Preface, Foreword, Introduction and Acknowledgements
Series Contents, Contents, List of tables, List of figures

Chapter 1 Procurement

Synopsis
This chapter looks at the concept of procurement and contracting strategies and discusses:

- Procurement and contract strategy
- What tender documents to include in an ECC invitation to tender
- How to draft and compile a contract using the ECC
- Procurement scenarios that an employer could face and how to approach them

- What are framework agreements and how they could incorporate the ECC
- What is partnering and how it can be used with the ECC

Appendix 1 Assessing tenders
Appendix 2 ECC tender documentation

Chapter 2 Contract Options

Synopsis
This chapter looks at the Contract Options available within the ECC:

- ECC main and secondary Options
- Priced contracts
- Target contracts
- Cost-reimbursable contracts
- Choosing a main Option
- Choosing a secondary Option

Appendix 3 Audit Plan

Chapter 3 Completing the Contract Data

Synopsis
This chapter gives guidance on:

- How to choose a main Option
- How to choose secondary Options
- Choosing optional statements in the Contract Data
- Where to position the optional statements in the Contract Data
- How to complete each statement in the Contract Data

Chapter 4 Works Information guidelines

Synopsis
This chapter looks at the Works Information and Site Information:

- Providing the Works
- What should be included in the Works Information
- Separation of the Works and Site Information
- Structuring for the Works Information
- Interface management
- General rules in drafting the Works Information
- Site Information

Appendix 4 Works Information clauses

Book 3 NEC Managing Reality: Managing the Contract

Preface, Foreword, Introduction and Acknowledgements
Series Contents, Contents, List of tables, List of figures

Chapter 1 Payment procedures in the ECC

Synopsis
This chapter discusses the following:

- The payment procedure including:
  - When the *Contractor*'s application for payment is submitted
  - When assessments take place
  - When the payment certificate is issued
  - How invoicing is carried out
  - When payment takes place
- The effects of Option Y(UK)2 taking into account the Housing Grants, Construction and Regeneration Act 1996

Chapter 2 Control of time

Synopsis
This chapter discusses aspects relating to the *Contractor*'s programme including:

- The terminology used to describe the programme
- What the programme is
- The definition and purpose of the Accepted Programme
- How and when to submit programmes
- What the programme is used for
- What to include in the programme

Chapter 3 Control of quality

Synopsis
This chapter discusses:

- The quality framework embedded within the ECC
- The *Contractor*'s obligations
- Role of the *Employer*'s representatives
- Subcontracting
- Quality control

Chapter 4 Disputes and dispute resolution

Synopsis
This chapter:

- Emphasises the importance of early dispute resolution to the successful outcome of a contract
- Considers the common sources of dispute
- Considers how the ECC has been designed to reduce the incidence of disputes
- Examines how the ECC provides for the resolution of disputes
- Looks at the implications for the dispute resolution process as a result of the new Housing Grants, Construction and Regeneration Act 1996
- Looks at ECC3 changes in relation to adjudication.

Book 4 NEC Managing Reality: Managing Change

Preface, Foreword, Introduction and Acknowledgements
Series Contents, Contents, List of tables, List of figures

Chapter 1 Compensation Events

Synopsis
This chapter describes the following:

- The compensation events contained within the ECC
- Procedure for administering compensation events
- Roles played by the two main parties to the contract in relation to compensation events

Appendix 1 Compensation event procedures

Chapter 2 Schedule of Cost Components

Synopsis
This chapter discusses aspects relating to the Schedule of Cost Components including:

- When the Schedule of Cost Components is used
- How the SCC interacts with the payment clauses
- Actual Cost and Defined Cost
- The Fee
- The components of cost included under the Schedule of Cost Components
- Contract Data part two

Appendix 2 Section A: ECC2 example quotations
Section B: ECC3 example quotations
Appendix 3 Example people costs
Appendix 4 Preliminaries comparison
Appendix 5 *Contractor*'s and Subcontractor's share example

Book 5 NEC Managing Reality: Managing Procedures

Synopsis
This chapter brings together all the aspects discussed in previous chapters in Books 1 to 4, which form part of the series of books on NEC Managing Reality. This chapter provides the 'how to' part of the series. It introduces some example pro-formas for use on the contract.

For quick reference, this chapter may be read on its own. It does not, however, detail the reasons for carrying out the actions, or the clause numbers that should be referred to in order to verify the actions in accordance with the contract. These are described in detail in other chapters that form part of this series.

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1 Introduction to the Engineering and Construction Contract, concepts and terminology

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- Concepts on which the ECC is based
- Terminology used in the ECC
- Terminology not used in the ECC
- How the ECC affects the way you work

1.1 Introduction

In the past, construction employers have become increasingly dissatisfied with the construction industry because of the increased incidence of disputes and claims and the seeming inability of traditional contract forms to provide certainty of cost, time and quality.

Employers simply require greater certainty of outcome. Many employers and organisations have sought to improve this situation by

- heavily amending traditional contracts,
- initiating their own forms of contract,
- creating 'bespoke' contracts (normally imposing unilateral and onerous terms and conditions) and
- in many instances, continuing to use older versions of traditional contracts.

This has often led to inappropriate allocation of risk between the parties. It seems clear that a change is required.

Figure 1.1 sets out some of the issues surrounding the case for change.

The Institution of Civil Engineers was the first body to react to the challenge laid down by employers. The NEC Engineering and Construction Contract (ECC) was developed as an improvement to the failure of the traditional forms of contract to

- deliver 'certainty of outcome' for all parties involved and
- reduce the increasing trend towards adversarial relationships, which these contracts were seemingly encouraging.

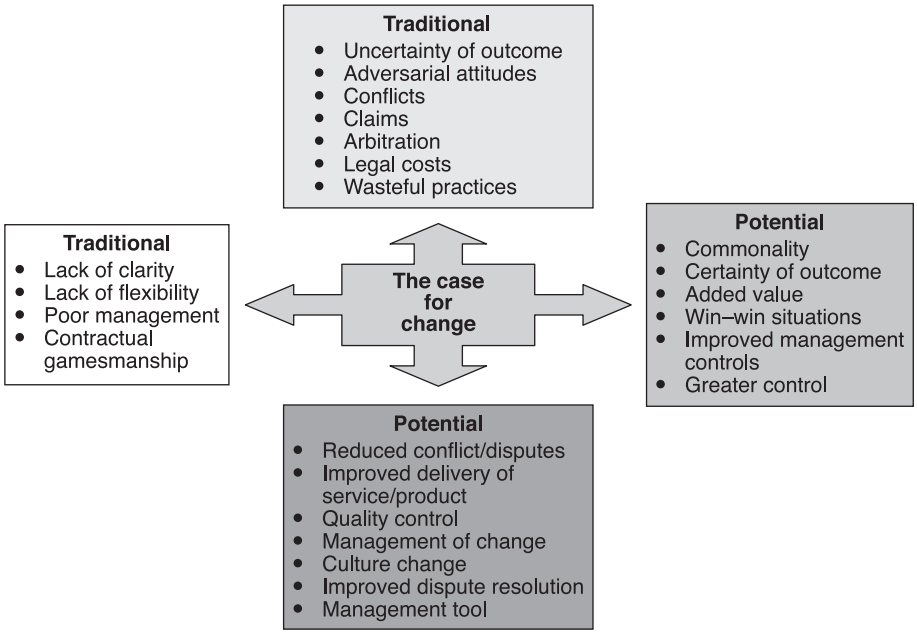

Fig. 1.1. The case for change

1.2 What is the ECC?

The Engineering and Construction Contract is one of a family of New Engineering Contract documents. It was published in consultative edition in 1991. The first edition was published in March 1993. In July 1994, Sir Michael Latham produced his report *Constructing the Team* in which he suggested that the New Engineering Contract complied with most of the principles for what he termed a Modern Contract and that it should be entirely appropriate for wide use.

Following the publication of the Latham report, the Institution of Civil Engineers brought forward the publication of the second edition of the New Engineering

Contract (retitled *The Engineering and Construction Contract* to avoid any misconceptions that it was only suited to engineering projects). The second edition published in November 1995[1] included a number of small refinements to the first edition prompted by comment and feedback from projects on which the first edition had been used. It also included the changes recommended in the Latham Report.

The third edition was published in June 2005 and the inside cover of this edition has a statement outlining the OGC (Office of Government Commerce) endorsement of NEC3. The statement reads as follows

> '*OGC endorsement of NEC3*
> OGC advises public sector procurers that the form of contract used has to be selected according to the objectives of the project, aiming to satisfy the Achieving Excellence in Construction (AEC) principles.
> This edition of the NEC (NEC3) complies fully with the AEC principles. OGC recommends the use of NEC3 by public sector construction procurers on their construction projects.'

The OGC outlines the objective of the Achieving Excellence in Construction initiative to be

> 'Through the Achieving Excellence initiative, Central Government clients commit to maximise, by continuous improvement, the efficiency, effectiveness and value for money of their procurement of new works, maintenance and refurbishment.'[2]

The key aspects of the AEC initiative include

- use of partnering and development of long-term relationships,
- the reduction of financial and decision-making approval chains,
- improved skills development and empowerment,
- the adoption of performance measurement indicators, use of tools such as value and risk management and whole-life costing.

The NEC suite sits very comfortably against these objectives as indicated in Table 1.1.

Table 1.1. NEC3 compliance with OGC AEC

Key objectives OGC Achieving Excellence in Construction initiative	NEC3 (suite of contracts) Compliance with OGC AEC initiative requirements
• Use of partnering and development of long-term relationships	• Option X12 – Partnering • Term Service Contract • Framework Contract: addition to the suite of contracts
• Reduction of financial and decision-making approval chains	• Roles and responsibilities within the contract support this objective
• Improved skills development and empowerment	• Clarity of procedures
• Adoption of performance measurement indicators, use of tools such as value and risk management and whole-life costing	• Option X20 – Key Performance Indicators introduced into ECC3 • Risk management – introduction into contract of risk reduction meetings • Contract Data part one identifies the matters to be considered in the Risk Register

The OGC endorsement indicates the NEC suite of contracts' pre-eminence in modern procurement thinking.

[1] A second edition was published in June 1995; however, this was withdrawn.
[2] Reference from OGC website (www.ogc.gov.uk) 3 June 2005.

1.2.1 The NEC family

The NEC family includes

- the Engineering and Construction Contract
  - Consultative edition 1991 (as the New Engineering Contract)
  - First edition 1993 (as the New Engineering Contract)
  - Second edition June 1995
  - Reprints
  - November 1995 with amendments (not applicable to Guidance Notes or Flow Charts) 1996 (Guidance Notes and Flow Charts only)
  - May 1998 with corrections (not applicable to Guidance Notes or Flow Charts).

Other documents in the New Engineering Contract family include

- the Engineering and Construction Subcontract
  - Consultative edition 1991 (The New Engineering Subcontract)
  - First edition 1993 (The New Engineering Subcontract)
  - Second edition November 1995
- the Engineering and Construction Short Contract
  - First edition July 1999
- the Engineering and Construction Short Subcontract
  - First edition July 2001
- the Professional Services Contract (PSC)
  - First edition 1994
  - Second edition June 1998 Reprints
- the Adjudicator's Contract
  - April 2000 – Reference NEC/Y(UK)3
- the Term Service Contract (draft first edition)
- Chinese Translation
  - the Engineering and Construction Contract with Guidance Notes
  - First edition October 1999.

Since the publishing of the second edition Engineering and Construction Contract (ECC2), a number of amendments were published separately. These were

- a partnering Option used through choosing Option X12,
- the use of statutory payment and adjudication used through choosing Option Y(UK)2 for the Housing Grants, Construction and Regeneration Act (1996) and
- Option Y(UK)3, which caters for the Rights of Third Parties Act (1999).

These Options are now incorporated within the body of the third edition ECC (ECC3).

The NEC3 suite of contracts has been extended to include

- the Framework Contract; this has been introduced for long-term relationships as envisaged by the OGC,
- a new Option X20 Key Performance Indicators has also been incorporated into the NEC suite of contracts – again to support the objectives of the OGC.

1.3 Brief outline of differences between ECC2 and ECC3

There have been several changes to ECC2 in order to reach what is now ECC3. Some of these changes are simple changes, such as clause numbering changes; for example, the list of definitions in clause 11.2 is listed in alphabetical order in ECC3, resulting in a clause number change for all 11.2 definitions. Some of the other changes have a large impact on the way that the ECC works. There have also been some new concepts introduced, such as key dates and the Risk Register. Appendix 1 to this chapter highlights some of the changes to expect.

This book uses the ECC2 as a basis. Generally, clauses referred to carry the ECC2 references, although in many instances both the ECC2 and the ECC3 clause number is referred to.

1.4 Why is the ECC different?

The ECC is different from traditional forms of contract in a number of ways.

(1) The contract has been drafted with clear objectives to make improvements in three main areas:
- flexibility
- clarity and simplicity
- stimulus to good management.

(2) Assessment of change is radically different and is based upon the pre-assessment of change based on forecast costs and not tendered rates and prices. It is also a principle of this process that a *Contractor* should be neither better nor worse off for an *Employer*-driven change event occurring.

(3) It requires a change of culture from those who participate in the contract.

(4) It encourages trust, collaboration, and early risk identification.

(5) The ECC is written in the present tense.

(6) There is no nomination process for Subcontractors or suppliers.

(7) The ECC describes actions that are to be taken by the parties. If the parties carry out those actions, then the rights and obligations attached to those actions are fulfilled.

(8) The contract is a document of procedures. The document describes the steps to be taken in the procedure, who does them and within what time-scales. If you carry out the procedures, you fulfil your obligations under the contract. This emphasises the fact that the ECC is a working document.

(9) Most importantly, the document is based on a spirit of mutual trust and cooperation. These are not just fancy buzzwords dreamt up by the authors of the ECC. It is the reality of the contract supported by the processes and procedures set out in the contract. The contract will be successful if both parties follow this obligation outlined in the first clause of the contract.[3] Trust is achieved through carrying out your actions under the contract within the time frame allocated. That is, be reliable and consistent.

To achieve these objectives the ECC introduces and uses some unfamiliar terminology and gives some unfamiliar meanings to familiar terminology from traditional contracts. There are also some concepts that may be new to first-time users of the ECC or that may not be clear to some parties already using the ECC.

1.4.1 Flexibility

(1) *Multi-disciplinary*. The contract avoids using words that denote a particular engineering discipline. It can therefore be used by any disciplines such as civil, building, process, mechanical and electrical.

(2) *Design*. The ECC allows for a fully designed solution by either party or a mix of *Employer* and *Contractor* design, and uses the Works Information to state the elements of the *works* that are to be *Employer* or *Contractor* designed.

(3) *Pricing*. The ECC is based on a set of common core clauses, which apply to all of the six main Options which range from Option A fixed priced lump sum to Option E cost reimbursable and Option F the management contract option. As such, the same contract can be used whether the pricing mechanism is an *activity schedule,* a *bill of quantities* or the Schedule of Cost Components. In some larger contracts, it is possible to choose two pricing options, as long as the boundaries of scope for the two are clearly demarcated. This concept differs from traditional suites of contracts, which have specific printed versions for each contract type.

(4) *Applicability*. Because of the simple language and multi-disciplinary nature of the contract, it is being used on a worldwide basis, including in Asia, Africa and South America.

[3] Clause 10.1.

Flexibility
- Multi-disciplinary
- Design
- Pricing
- Applicability

1.4.2 Clarity and simplicity

(1) *Plain English*. The ECC is written in plain English and avoids the use of 'woolly words or phrases', such as 'to the reasonable satisfaction of' and 'in the opinion of'. It recognises that the interpretations of these vague words/phrases are the very seedbed of dispute. It contains very little legalese except for the inevitable words such as indemnity and subrogation in the insurance section. The recognition of this objective within the NEC suite of contracts is that The Plain Language Commission, whose objectives are to encourage plain English, clarity and the use of simple language rather than legalese and long complicated sentences in documents, have certificated the Short Contract.

(2) *Present tense*. The first clause of the contract (clause 10.1) places the obligation on the parties by using the word 'shall'. Thereafter, the obligation having been set, the drafting is in the present tense, avoiding repeated use of the word 'shall'. This underlines the use of the ECC as a working document.

(3) *Simple structure*. The simple structure of the document allows for easy translation of the ECC into other languages and facilitates the use of other documents within the NEC family because all the documents in the NEC family have the same structure.

(4) *Short sentences*. Most of the sentences written in the ECC are short. Bullet points are used in the NEC documents to facilitate understanding of longer sentences. In comparison, the longest sentence in the ICE 5th contract is around 252 words.

(5) *Procedures not open-ended or conflicting*. A set of documented flow charts has been drafted to accompany and complement the ECC to ensure that the procedures do come to an end and that the logic within each procedure is complete.

(6) *No cross-referencing*. There is no cross-referencing or use of phrases such as 'subject to' or 'notwithstanding' in NEC documents. This means that the document as a whole has to be understood, since clauses do interact, such as clauses 16.1, 61.5 and 63.4,[4] which deal with early warning.

(7) *No reference to law*. The ECC does not specifically stipulate the requirement to adhere to Acts of Parliament, regulations, statutes and other laws passed. It refers instead to the law of the land in Contract Data part one, thereby encompassing all regulations, Acts, etc. and both Parties are required to adhere to it.

Clarity and simplicity
- Plain English
- Present tense
- Simple structure
- Short sentences
- Procedures are not open-ended and conflicting
- No cross-referencing
- No reference to law
- Set of common clauses irrespective of the main contract option chosen

(Note: also commonality of clauses in the ECC subcontract)

[4] Clause 63.5 in ECC3.

Copying parts of these legal obligations into the Works Information or listing them in the Contract may give rise to conflict since: (a) the words may be copied incorrectly; (b) lack of context may alter their meaning; and (c) confusion may arise as a result of the emphasis placed on some aspects of the law, but not on others. Secondary Option T (Changes in the law),[5] provides an opportunity for the *Employer* to take the risk of changes in the law. Without this secondary Option the risk lies with the *Contractor.*

1.4.3 Stimulus to good management

(1) *Collaborative foresight*. Working together proactively can mitigate problems and reduce the risks inherent in construction work. The ECC encourages the parties to collaborate and to think ahead.

(2) *Clear allocation of responsibility*. There is a clear division of function and responsibility that helps accountability and motivation. If an action is required to be carried out, the ECC states who is responsible for carrying out the action and the time-scale for doing so.

(3) *Early warning procedure*. The early warning procedure stimulates foresight, enabling the *Project Manager* to make early rational decisions about issues which may arise and which may necessitate changes to the work. Good communications facilitate the presentation and exploration of options for dealing with problems.

(4) *Detailed procedure for dealing with changes*. The ECC change process recognises that change occurs on almost every contract and that if not managed carefully this change can result in disputes and lead to uncertainty of outcome in terms of cost, time and quality. Managing change as it occurs is at the heart of the ECC.

Prompt notification through the contractual obligation of the Parties to give each other early warning of anything which could affect cost, time or quality

- allows the *Project Manager* to be aware of changes at a far earlier point in time,
- gives him the opportunity to consider other impacts on the project,
- gives him time to consider options and make reasoned decisions.

The whole procedure is designed to provide greater certainty of the cost and time implications of changes.

The ECC also has a specific provision unlike other contracts for the acceptance of Defects.

(5) *Programming facility*. The programme and the management of the programme is a vital part of an ECC contract and is pivotal to change management. Many of the procedures within the contract rely on an up-to-date and realistic programme maintained by the *Contractor* that is used in joint decision-making by the *Contractor* and the *Project Manager*. The programme includes method and resource statements and is defined in some detail. The *Contractor* is motivated to keep the programme up to date by way of sanctions for failure to do so.

The contract bases time implications of change on entitlement and not need, as is the case in many of the traditional contracts.

Stimulus to good management
- Collaborative foresight
- Clear allocation of responsibility
- Early warning procedure
- Detailed procedure for dealing with change
- Programming facility

[5] Option X2 in ECC3.

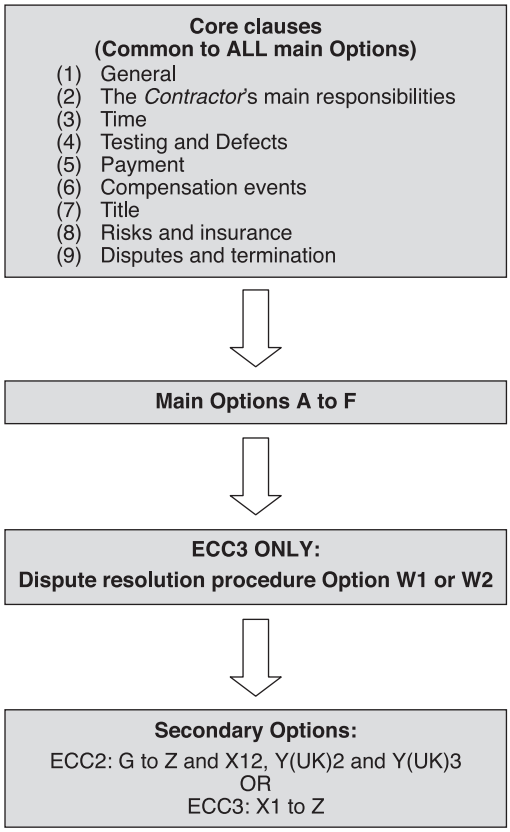

Fig. 1.2. ECC contract structure

1.5 ECC structure

The ECC is structured in a way that facilitates ease of use. The concept is that there is a set of core clauses which is common to all the main Options whether the Options lead to priced, cost-based or management contracts, or whether it is a fully *Employer*-designed or *Contractor*-designed solution. This same concept is continued through into the other NEC family of contracts.

To create a priced, cost or management contract, the user is required to select one of the main Options A to F. It is the choice of these clauses that determines whether the contract is priced, cost based, or a management contract.

The choice of a main Option results in a useable contract; however, it is a contract that would not have retention, delay damages and the like. These are introduced by use of the secondary Option clauses. To create a more tailored Contract you require the core clauses, a main Option and then appropriate secondary Options. Figure 1.2 shows a simplistic view of the ECC contract structure.

1.6 Conventions

1.6.1 Present tense

The NEC suite of documents is written in the simple present tense rather than the simple future tense. All the actions drafted in the present tense in the ECC should be read in conjunction with clause 10.1 (Actions), which contains the obligatory 'shall' and which reaches out to all actions made in accordance with the contract and turns all actions into commands.

The ECC is in effect meant to be an everyday working document: it provides the procedures that create the rights and obligations. Drafting the ECC in the present tense makes it more like ordinary everyday language and is an indication that it is a working document. All NEC documents minimise the use of legalese and this assists in the understanding of the contract and the actions required under it.

The ECC is an everyday working document.

1.6.2 Clause numbering The first clause number is clause 10. Some users might find this a little strange, particularly if, again, comparisons are made to traditional contracts where the first clause might be clause 1.

The clause numbering assists users in navigating their way through the core clauses. There are nine sections of core clauses. Each clause within the first section of core clauses (1 General) starts with a number 1. Each clause within the second section of core clauses (2 The *Contractor*'s main responsibilities) starts with a number 2. And so on. If clause 52.1 is referred to, then you know that it can be found in the fifth section of core clauses (5 Payment). The second digit in the clause number refers to the order in which the clause appears in the section of core clauses. The digit 2 in clause 52.1 is therefore the **third** clause in the section – the first being nought (50.1). The digit after the decimal point refers to the paragraph in the clause. The digit 1 in 52.1 therefore means that it is the **first** paragraph in clause 52.

1.6.3 Defined terms Defined terms are words and phrases that begin with an initial capital letter[6] such as

- the Site
- the Working Areas
- the Completion Date
- Plant and Materials.

The definition of these defined terms used throughout the ECC can be found in clause 11.2.

1.6.4 Identified terms Identified terms are words and phrases that appear in italics,[7] such as

1.6.4.1 Generally

- *Project Manager*
- *defect correction period*
- *completion date*
- *law of the contract*.

The data that replace these italicised terms for each individual contract are to be found in the Contract Data.

> If, for example, Harry Haste has been named as the *Project Manager* in the Contract Data of a particular contract, then every time the *Project Manager* is referred to in the *conditions of contract*, it is Mr Harry Haste who is required to fulfil the actions described.

Note that some identified terms (in italics) also have capital initials, such as *Employer* or *Project Manager*. The capital initials do not make an italicised phrase a defined term. The italics take precedence and the term is an identified term to be found in the Contract Data.

1.6.4.2 Completion Date/ *completion date* You might notice that *completion date* is an identified term as well as a defined term (Completion Date). This means that the *completion date* can be found in the Contract Data and that the definition of the Completion Date is to be found in clause 11.2.

> Let us suppose that the *completion date* stated in the Contract Data is 19th July 2006. The definition of the Completion Date[8] is 'The Completion Date is the *completion date* unless later changed in accordance with this contract.' The definition therefore refers you to the Contract Data and the 19th of July 2006 stated therein. Wherever the *conditions of contract* refer to the Completion Date, you know that it means the 19th of July 2006.

[6] In accordance with clause 11.2.
[7] In accordance with clause 11.1.
[8] ECC2 clause 11.2(12); ECC3 clause 11.2(3).

For example, clause 30.1 states that 'The Contractor ... does the work so that Completion is on or before the Completion Date.' In this contract, therefore, the *Contractor* is required to complete the *works* by 19th of July 2006. Of course, this date may change during the period of the contract if, for example, a compensation event results in a later Completion Date. If this happens, then the Completion Date refers to the new date as changed in accordance with the contract.

1.6.4.3 Working Areas/*working areas*

A similar definition exists for the Working Areas, where the definition of the Working Areas is as follows.

ECC2[9]: 'The Working Areas are the *working areas* unless later changed in accordance with this contract.'

ECC3[10]: 'The Working Areas are those parts of the *working areas* which are
- necessary for Providing the Works and
- used only for work in this contract

unless later changed in accordance with this contract.'

The *working areas* are identified in Contract Data part two by the *Contractor*. The *working areas* can be changed by agreement between the *Contractor* and the *Project Manager*.[11] Any reference to the Working Areas therefore refers the user to the areas identified in Contract Data part two and any other areas that may have been added later.

1.6.4.4 Plant and Materials *and* Equipment

Depending on your traditional background or discipline, you may have a different idea of the definition of Plant and Materials[12] and Equipment[13] than intended in the ECC. Plant and Materials are items that are intended to be included in the *works.* Plant in this definition refers to items of mechanical and electrical engineering services installations. It should be noted that some disciplines would refer to these installations as items of equipment (note the use of the lower case 'e'). This should not be confused with the use of the word Equipment in the ECC.

Equipment (note comments on Plant and Materials in the paragraph above) are items provided by the *Contractor* and used by him to Provide the Works and which the Works Information does not require him to include in the *works.* This definition covers items traditionally known as constructional plant (note the use of the lower case 'p'), for example excavators, cranes, temporary works such as temporary sheet piling.

1.6.4.5 Difference between identified and defined terms

To emphasise the difference between identified terms and defined terms, we can look at clause 50.1. Table 1.2 shows identified terms and defined terms that can be found in this clause.

Table 1.2. Examples of defined and identified terms

Defined terms	Identified terms
Parties Completion Defects Certificate	*Project Manager* *assessment interval* *starting date* *works* *Supervisor*
These are defined terms because they have capital initial letters These terms are defined in clause 11.2	These are identified terms because they are in italics These terms are identified in the Contract Data

[9]Clause 11.2(8).
[10]ECC3 clause 11.2(18).
[11]Clause 15.1.
[12]ECC2 clause 11.2(10); ECC3 clause 11.2(12).
[13]ECC2 clause 11.2(11); ECC3 clause 11.2(7).

1.6.5 Contract data numbering

You may notice when you look at the pro-forma for the Contract Data as it appears in the black book,[14] that all sections of core clauses are listed down the left-hand side of the page, except for core clause section 7 for ECC2 and core clause sections 2, 7 and 9 in ECC3. This is because there are no **new** identified terms appearing in these sections of the core clauses.

To explain further, the identified term tends to appear in the Contract Data under the core clause section in which it first appears, in the conditions of contract. For example, the identified terms *Project Manager*,[15] *Employer*,[16] *Supervisor*,[17] *boundaries of the site*[18] and *language of the contract*[19] (among others) all appear in section 1 of the core clauses and are subsequently named in section 1 General of Contract Data part one.

Going back to clause 50.1 as discussed above, the identified terms in that clause appear in different places in Contract Data part one according to where they first appeared in the *conditions of contract*.

- *Project Manager* therefore appears in section 1 of Contract Data part one because the term *Project Manager* first appears in clause 10.1.
- The term *assessment interval* appears in section 5 of Contract Data part one because it has not been referred to in previous sections of core clauses.
- The term *starting date* appears in section 3 of Contract Data part one because this term first appears in clause 31.2.
- The term *works* appears in section 1 of Contract Data part one because this term first appears in clause 11.2(4).*
- *Supervisor* appears in section 1 of Contract Data part one because the term *Supervisor* first appears in clause 10.1.

In general, therefore if the identified term refers to

(1) a general item, it will appear in section 1 of Contract Data part one,
(2) the *Contractor*'s main responsibilities, it will appear in section 2 of Contract Data part one (not required for ECC3),
(3) time, it will appear in section 3 of Contract Data part one,
(4) testing and Defects, it will appear in section 4 of Contract Data part one,
(5) payment, it will appear in section 5 of Contract Data part one,
(6) compensation events, it will appear in section 6 of Contract Data part one,
(7) risks and insurance, it will appear in section 8 of Contract Data part one,
(8) disputes and termination, it will appear in section 9 of Contract Data part one (not required for ECC3).

The two exceptions to this generalisation are

- the identified terms that appear in Contract Data part two not Contract Data part one,
- optional Contract Data statements that should be integrated into the relevant core clause sections in the Contract Data.

1.6.5.1 Exception 1: Contract Data *part two*

Some identified terms will not be found in Contract Data part one. Examples are

- the *Contractor*,
- the *working areas*,

[14] The Engineering and Construction Contract has a black cover in its published form and is known as the 'black book' to distinguish it from the contracts A to F in the boxed set.
[15] Clause 10.1.
[16] Clause 10.1.
[17] Clause 10.1.
[18] ECC2 clause 11.2(7); ECC3 11.2(15).
[19] Clause 13.1.
* ECC3 clause 11.2(13).

- the *activity schedule*,
- the *bill of quantities*.

Although the *Contractor* is first mentioned in clause 10.1 and you might therefore expect to find it identified in section 1 of Contract Data part one, it is, in fact, to be found in Contract Data part two. The terms mentioned in the list above are terms that the *Contractor* has to provide as part of his tender and therefore they are included in Contract Data part two. Apart from identifying the *Contractor*, all the other terms pertain to the manner in which the *Contractor* is paid and therefore they are within his scope of influence and not the *Employer*'s.

1.6.5.2 Exception 2: Optional statements

There are a number of 'optional statements' in the pro-forma for the Contract Data included in the ECC. These optional statements represent part of the contract strategy[20] decided by the *Employer* prior to placing the contract. Although the example of Contract Data in the ECC guidance notes retains these optional statements as a separate section, found after the Contract Data sections for the core clauses, it is recommended that they are in fact integrated into the body of the Contract Data to preserve the logic of the layout. In other words, the optional statement for the *completion date* should be added into section 3 of the Contract Data (assuming the *Employer* chooses the *completion date*). The optional statement regarding additional compensation events should appear under section 6 of the Contract Data. And so on.[21]

> It is recommended that the optional statements are integrated into the body of the Contract Data to preserve the logic of the layout.

1.6.5.3 Conclusion

The foregoing discussion is important because it helps you to locate identified terms in the Contract Data and understand the reasoning behind their placement.

1.6.5.4 The giving of reasons

In general, if a decision is to be made (generally by the *Project Manager*), then the scope of the reasons for that decision are set out in the contract. Examples are clauses 13.4 (reply to a communication is not acceptance) and 31.3 (reasons for not accepting a programme). All of these reasons relate back to clause 60.1(9), where a compensation event may be notified if the *Project Manager* withholds an acceptance for a reason not stated in the contract.

If the reasons given by the *Project Manager* for his decision are not in line with the scope of the reasons stated in the contract, then the *Contractor* becomes entitled to an assessment[22] of time and money to compensate him for the *Project Manager* breaching his obligations.

Exceptions to this rule requiring specific reasons are clauses 24.2 (removing people) and 36.2 (acceleration) where the *Project Manager* and the *Contractor* respectively are required to give reasons, but any reason may be given.

> Reasons are to be given and the scopes of the reasons for the decisions are set out in the contract.

1.7 Concepts

The following subsections give some of the concepts that are new to the ECC or that are different in the ECC.

[20] Contract strategy is discussed in Chapter 1 of Book 2 and examples given in Chapter 3 of Book 2.
[21] An example of the Contract Data with guidance notes is in Chapter 3 of Book 2.
[22] This assessment could be for zero time and no extra money; the point is that the *Project Manager*'s withholding acceptance for a reason other than those stated in the contract is a compensation event.

1.7.1 Mutual trust and cooperation

The most important aspect of the NEC contracts is the principle of mutual trust and cooperation. The contract is designed so that the *Contractor* is motivated to fulfil his actions and the *Project Manager* and the *Supervisor* are motivated to perform theirs. This principle is so important that if the *Contractor* does not carry it through to the subcontracts, the *Project Manager* may refuse to accept the subcontract conditions of contract.[23]

> Spirit of mutual trust and cooperation is a fundamental principle of the ECC.

1.7.2 Early warning

Change, however big or small, is considered to be almost inevitable in construction contracts and the major source of cost and time uncertainty. An 'early warning' of the change enables the parties to manage the effects of change more effectively.

Traditional contracts do not tend to make it an express obligation to give an early warning of cost-increasing/delaying events. The ECC however includes a specific obligation in clause 16 for the Parties to give notice as soon as they become aware of any matter which could affect the time, cost or quality objectives of the project.

Either the *Project Manager* or the *Contractor* could notify an early warning. Note that the warning is of something in the future[24] and therefore it might not happen at all. This procedure embodies the ECC principle that '*Foresight applied collaboratively mitigates problems and shrinks risk*'.[25]

This early warning procedure (incorporating the risk reduction meeting in ECC3) provides for

- clear actions by the parties,
- joint consideration of proposals to mitigate or avoid the issue,
- agreement on joint solutions to the problem,
- decisions upon actions to be taken and who will take them,
- recording of the proposals considered and decisions taken.

An early warning is contractualised common sense and is an extension of the obligation contained in clause 10.1 to act in the spirit of mutual trust and cooperation. It tends to be far more productive and economical to sort out a problem before it occurs, rather than to wait until after the fact, when your options are reduced and the effects tend to be magnified.

There is no reply *per se* required to an early warning notification.

The changes included in ECC3 have rendered a different effect to the early warning procedure contained within ECC2. The two procedures are discussed below.

1.7.2.1 ECC2: Early warning procedure

Either the notifying party or the recipient of the notification may instruct the other to attend an early warning meeting if the matter is considered sufficiently urgent to require immediate attention. Meetings are then held at which a jointly agreed course of action to eliminate or reduce the effects of the notified matter is determined. Otherwise, early warnings may practically be discussed at a regular meeting, such as a weekly progress meeting. This is the only time that the *Contractor* may instruct the *Project Manager* to do something.

The sanction[26] for a *Contractor* failing to give an early warning, which could have allowed actions to have been taken to reduce costs and save time, is that if the matter subsequently becomes a compensation event, the *Project Manager* can request that any savings in time and money that would have been

[23] Clause 26.3.
[24] As denoted by the word 'could'.
[25] The Engineering and Construction Contract Guidance Notes (ECC2) page 3 paragraph 2.
[26] Clauses 61.5 and 63.4 ECC3 clause 63.5.

made had an early warning been given are taken into account in assessing the effects of the compensation event.

There are no sanctions in the ECC against the *Project Manager* for failing to give an early warning. However, failure to give an early warning could result in greater time, cost or both for the *Employer*'s project. This should be a powerful incentive for the *Employer* to ensure that his appointed *Project Manager* performs. It could also be argued that the *Project Manager* is in breach of clause 10.1 because he has not acted in a spirit of mutual trust and cooperation.

There could be a slight overlap between early warnings and compensation events because compensation events can also be notified for events that will happen (that is, are in the future) but have not yet happened.

In general, then, *Contractors* should be aware of matters that could affect the project and that, if they occur, could reduce the *Project Manager*'s ability to manage the project effectively. It is not in either Party's interests for the *Contractor* to flood the *Project Manager* with early warnings, however, and the spirit of mutual trust and cooperation that underlies the contract should always be borne in mind.

- **There are sanctions** for the failure of the *Contractor* to give an early warning.
- Failure by the *Project Manager* to give early warnings may result in the *Employer* incurring greater cost, time or an end-product of reduced quality.

1.7.2.2 ECC3: Early warning and risk reduction procedure

Although the notification of an early warning takes place in the same manner as in ECC2, there are added reasons for notifying an early warning. In addition, the ECC2's early warning meeting is called a 'risk reduction meeting' in ECC3 and there are some resulting differences.

The early warning still centres on the time, cost and quality effects on the project. With regard to the time effects, the subject of an early warning notice could be not only a delay in meeting the Completion Date, but also a delay in meeting a Key Date. A Key Date is set by the *Employer* using the Contract Data and it represents the date by which the *Contractor* is required to meet the *condition* also stated in the Contract Data. The facility is therefore available to control time more tightly.

With regards to the cost effects, the *Contractor* may notify the *Project Manager* of any matter that could increase his total cost. This all-encompassing category does not appear to limit the *Contractor* to those aspects of the project that are outside of his control. This facility could become burdensome to the *Project Manager*; even though a specific answer is not required from the *Project Manager*, he would still be obliged to review each notice as part of his project management duties.

The last addition to clause 16.1 is a caveat that if a compensation event has previously been notified, an early warning for the same subject is not required. This would appear to be common sense since a matter cannot be an *early* warning if it has already been notified as a compensation event.

As already mentioned, the early warning meeting of ECC2 is now called a risk reduction meeting.[27] Since every early warning automatically becomes a risk to be included in the Risk Register,[28] the meeting does not discuss early warnings, but rather discusses the registered risk; that is, those risks that were originally in the Risk Register by being listed in the Contract Data, and all the early warning matters. In addition to making proposals for risk avoidance, seeking solutions and deciding on actions, the attendees at the risk reduction meeting decide which risks can be removed from the Risk Register.[29]

[27] Clause 16.2.
[28] ECC3 clause 11.2(14).
[29] ECC3 clause 16.3.

The last change to the procedure is in clause 16.4, where the *Project Manager*'s role is more wide-reaching. Rather than simply recording proposals and decisions at the meeting and copying his notes to the *Contractor*, he revises the Risk Register and issues the revised register to the *Contractor*. If any decision has ramifications with regard to a change to the Works Information, the *Project Manager* is proactively required to instruct any change at the same time as he issues the revised register.

1.7.3 Compensation events

The extension of time and financial evaluation provisions in respect of the effects of change in traditional contracts do not lend themselves to giving certainty of outcome to either the *Employer* or *Contractor*. This inevitably leads to dissatisfaction and can cause the breakdown in the communication/collaboration that is so often essential to the success of contracts.

The ECC uses compensation events to determine change and the Schedule of Cost Components to value change. Compensation events are those events for which the *Contractor* becomes entitled to an assessment of time and money bearing in mind that the assessment could be zero. Compensation events tend to be a contractual remedy to the *Project Manager*'s or the *Employer*'s breach of contract.

Neither the originally tendered *activity schedule* (main Option A) nor the priced *bill of quantities* (main Option B) is used for assessing the financial effects of change. Instead the *Contractor* is reimbursed the financial effects of the compensation event upon Actual Cost or forecast Actual Cost (ECC2), or upon Defined Cost or forecast Defined Cost (ECC3). The premise behind this is that the *Contractor* should be neither better off, nor any worse off for the change occurring.

The financial and time effects of compensation events (some of which could constitute variations to the contract) are intended to be pre-assessed within strict time limits and the contractual procedure describes the actions taken by both the *Contractor* and the *Project Manager* to notify, quote for and implement the compensation event.

In ECC2, the most important concept is that the *Contractor* has two weeks only to notify a matter as a compensation event. The trigger is the *Contractor*'s becoming aware of the event, and this brings with it all the uncertainties of when he became aware of the event. As with the early warning notification, however, documentation and observation will tend to show whether the *Contractor* had knowledge of the matter. In ECC3, the *Contractor* has a longer period of eight weeks after becoming aware of the matter to notify it as a compensation event. In addition, if the matter is one which should have been notified by the *Project Manager*, then there does not appear to be any time limit on notification of the matter as a compensation event.

The reason for these requirements is to ensure that the financial and time effect of all compensation events are assessed at the time they arise and not retrospectively. The time periods included in the contract for the administration of compensation events can be relaxed by agreement between the *Project Manager* and the *Contractor*. Such relaxation should, however, be the exception and not used to cover up ineffective administration of the contract.

1.7.4 Acceleration

Many contracts do not provide any provision for acceleration of the works. Acceleration under ECC means bringing the Completion Date forward. This differs from many contracts where 'acceleration' means speeding up the work to ensure that the Completion Date is achieved. Acceleration is covered in clause 36 and there are also some clauses in the main Options[30] denoting the different ways of implementing acceleration for the different main Options.

[30] Clause 36.3 in Options A, B, C and D; clause 36.4 in Options E and F.

The *Project Manager* has no authority to instruct the *Contractor* to accelerate. He may only instruct the *Contractor* to submit a quotation to do so.[31] The *Contractor* may either submit a quotation or give his reasons for not submitting a quotation.[32] In other words, the *Contractor* may choose whether to accelerate or not. He is not obliged to accelerate and it may not be imposed upon him. The quotation does not have to be in accordance with Actual Cost plus Fee (ECC2) or Defined Cost plus Fee (ECC3)[33] and therefore could be whatever the *Contractor* wishes to charge (always within the boundaries of mutual trust and cooperation, of course). In ECC3, the *Contractor* is required to submit details of his assessment with each quotation,[34] which seems to suggest that the *Project Manager* may scrutinise and question any details.

If the *Project Manager* is concerned because a compensation event is pushing out the Completion Date, rather than instruct a quotation for acceleration he may request the *Contractor* to submit alternative quotations for dealing with a compensation event, including an alternative quotation maintaining the Completion Date.[35]

Acceleration in the ECC does not mean speeding up the progress of the contract to achieve Completion on time. The *Project Manager* may not instruct the *Contractor* to speed up progress if he is concerned that Completion will not be achieved by the Completion Date. Similarly, in ECC3, he may not instruct the *Contractor* to speed up if he thinks that Key Dates are not going to be met. He may, however, instruct the *Contractor* to submit a revised programme[36] showing how he intends to make up the lost time. Some *Employer*s do not like this departure from traditional contracts where the *Contractor* is required to use his best endeavours and where the *Project Manager* may instruct the *Contractor* to speed up the works in order to meet the contractual completion date. These *Employer*s add Option Z clauses allowing the *Project Manager* to make such an instruction and permitting him to disallow the costs of such progression.

Such courses of action and instructions need to be carefully considered by the *Employer*, since such tactics could be seen as coercing/pressuring the *Contractor* to take courses of action which could increase the likely risk of a health and safety incident, for example methods of working, sequencing of works. Should such an incident occur then the *Contractor* will be culpable but if it was seen by the Health and Safety Executive that the *Employer* had unduly pressurised the *Contractor* into unsuitable actions then the *Employer* may also be held partly culpable for any health and safety incident which may occur.

1.7.5 Adjudication

The only means of dispute resolution in many forms of contract is arbitration or litigation, both of which in recent years have become time-consuming and expensive. The ECC recognises the need to have an intermediate stage of independent dispute resolution and this has been introduced in the form of adjudication.

The contract encourages the resolution of disputes during the currency of the contract and the adjudication process gives clear time-scales and clear actions.

If a Party is dissatisfied with the *Adjudicator*'s decision, then that Party may refer the disputed matter to arbitration or litigation.[37] Notification by a Party of his intention to refer a matter to the *tribunal* must be given within four weeks of a disputed *Adjudicator*'s decision. In ECC2, tribunal proceedings cannot be started before Completion of the whole of the works.

[31] Clause 36.1.
[32] Clause 36.2.
[33] As it would generally be for a compensation event quotation.
[34] Clause 36.1.
[35] See Chapter 2 of Book 3 for more details.
[36] Clause 32.2.
[37] The choice of arbitration or litigation as the second level of dispute resolution is indicated in Contract Data part one where the *tribunal* is identified.

Adjudication was initiated as a contract dispute method by the NEC and was then introduced as a statutory requirement by the Housing Grants, Construction and Regeneration Act (1996). Because of the definition of a construction contract in the Act, there are still many ECC contracts that do not fall within the definition of a construction contract and therefore do not fall under the remit of the Act, which would generally supersede the ECC adjudication clauses.[38] These contracts may still use the ECC adjudication as the first level of dispute resolution, as was intended by the contract. Contracts outside the UK that are not bound by the Housing Grants, Construction and Regeneration Act (1996) may also still use the ECC adjudication as the first level of dispute resolution, as was intended by the contract.[39]

1.7.6 Assessment dates

Assessments of the amount due take place at described assessment dates, which generally take place at monthly intervals. These may have been referred to as interim valuations in traditional contracts. In the ECC, it is the *Project Manager* who assesses the amount due, although he takes into account any application for payment that the *Contractor* might submit. It is not obligatory for the *Contractor* to submit an application for payment although under the cost-based options C, D and E, assessment of the amount due could be difficult for the *Project Manager* without an application for payment from the *Contractor*.

1.7.7 Accepted programme

Traditional contracts such as the ICE 5th, 6th and 7th require the *Contractor* to submit a programme for the works within 21 days after the acceptance of his tender. There is no requirement or obligation for a regularly updated programme to be submitted or maintained thereafter.

The ECC recognises that a live up-to-date programme can be a valuable management tool in giving certainty of outcome. It is a contractual requirement for the *Contractor* to maintain an up-to-date programme. This programme provides a contemporary record of progress, identifies the effects of any compensation events (changes) and alerts the *Contractor* to any delays enabling corrective action to be taken.

If the *Contractor* fails to submit a first programme to the *Project Manager* for acceptance the *Project Manager* withholds a quarter of the Price for Work Done to Date* from payments until the *Contractor* complies.

The sanction against the *Contractor* who fails to provide a regularly updated programme during the currency of the contract is that the *Project Manager* will be entitled to make his own assessment of any compensation events that arise.[40]

Each programme that is submitted to the *Project Manager* for acceptance becomes the Accepted Programme once the *Project Manager* has accepted it. Programmes are submitted regularly and each subsequent programme accepted by the *Project Manager* becomes the Accepted Programme. All assessments are made in accordance with the Accepted Programme and this programme therefore forms a kind of as-built programme as time goes by.

> There is a sanction on the *Contractor* for failure to submit a first programme for acceptance for the *works* within the required period after his tender (see optional statements in Contract Data part one): the *Project Manager* may withhold a quarter of the Price for Work Done to Date.

1.7.8 Design

There is no designer in the ECC. The *Employer*, the *Contractor* or both may carry out the design. If the *Employer* employs an external designer (possibly under a Professional Services Contract) then the *Employer* is responsible for the design under the ECC contract as if he had done it himself.

[38] Option Y(UK)2 for ECC2 and Option W1 for ECC3.
[39] Through the standard section 9 of the core clauses in ECC2 and through Option W1 in ECC3.
[40] Clauses 64.1 and 64.2.
*Clause 50.3.

If both Parties carry out some parts of the design, the interfaces between the Parties should be very clearly identified in the Works Information.

> The ECC relies on the Works Information to identify the parts of the *works* that the *Employer* and *Contractor* are to design.

1.7.9 Periods for reply

All procedures in the ECC give clear time limits in which actions are to be taken and all communications are required to be made within this time limit unless otherwise stated in the contract. There are two places in which these time-scales can be found

(1) within the core clauses; for instance, the procedural time-scales and limits for communications relating to compensation events and time are stated within those sections of the Contract,[41]

(2) the time limit known as the *period for reply* which is stated in Contract Data part one, completed by the *Employer* and which is a default time period applying to all communications that do not have their own time-scale as indicated in item (1) above.

Other time limits, which override the default *period for reply,* can be introduced by way of procedures being inserted into the Works Information. For example, if the *Contractor* is designing the *works* then a detailed *Employer* design approval procedure may be incorporated into the Works Information.[42]

Unless another time period is stated, you are tied into the default *period for reply*. The *period for reply* should be tailored to meet the following requirements.

- Internal procedures; for example, the organisation's design approval process might use or require adherence to different time-scales. This can be overcome by including it in the Works Information.
- Type of work; for example, road maintenance schemes or possession work on rail or projects where the facilities are required to be kept in operation will require different consideration in terms of the *period for reply*. There are limited periods of working windows on such projects, for example nightwork, Sunday working, or a limited time basis (e.g. 11 pm to 5 am). For such projects rapid decisions need to be made to make the most of these working windows. In such circumstances the *period for reply* will need to be very short, for example one day rather than an advisory 14 days.
- Contractual interfaces; this is particularly important for *Contractors* who complete Contract Data part one in their subcontracts. The Subcontractors' *period for reply* needs to work within the *Contractor*'s own main contractual *period for reply.*

The *period for reply* therefore applies to all people involved in the Contract including the *Project Manager* and *Supervisor.* Failure by the *Project Manager* or *Supervisor* to reply within the *period for reply* is a compensation event.[43]

The sanctions for failure to reply for the *Contractor* are numerous and include the possible loss of entitlement to compensation, or the *Project Manager* making his own assessment of change. These are covered in more detail in the specific chapters which deal with these aspects of the contracts.

It is therefore very important that all parties give consideration to and put in place procedures and set up their organisational structure to deal with communications.

[41] Sections 6 and 3 of the core clauses respectively.
[42] It should be noted, however, that there is generally no 'approval' in the ECC, only acceptance. The *Project Manager* is not required to approve the *Contractor*'s design, but to accept it, since under clause 14.1, the *Contractor* still retains liability for his design.
[43] Clause 60.1(6).

- The default period is stated in Contract Data part one.
- The procedures relating to compensation events and the Accepted Programme have their own time-scales.
- The Works Information may introduce other time limits for procedures dealing with, say, management.
- The *period for reply* may vary from contract to contract.
- The *period for reply* should be tailored to meet the requirements of the project, for example internal procedures, type of work and contractual interfaces.
- The *period for reply* applies to all parties.

1.7.10 Communications It is important to note that all communications required by the contract should be communicated separately as required in clause 13.7.

Examples of notifications required by the contract include early warning notices, a notification of a compensation event and a notification of an ambiguity or inconsistency. These notifications are required to be communicated separately, preferably in their own standard form. This means that they cannot be hidden away in minutes of meetings or as part of a letter covering other matters.

The objective is to ensure that important/vital contractual communications are not lost in the everyday hurly burly of contracts. Therefore having a requirement to notify separately ensures that

- the communications type can be clearly identified and
- the communication can be given the appropriate level of action.

In traditional contracts where no such requirement exists then often vital information or notices are lost within a blur of words in letters and reports. Some people and organisations have developed all-singing and -dancing pro-formas to cover a multitude of communications on one form. This cuts down on the number of different forms required; however, it does require great rigour and discipline to ensure that vital information is not overlooked or not prioritised properly on forms which all look the same.

- Good communication is vital on all projects.
- All communications required by the contract should be communicated separately.

1.8 Terminology

1.8.1 Completion Completion is a defined term that makes reference to the Works Information. The *Employer* should ensure that what is required to achieve Completion is clearly described in the Works Information[44] although ECC3 includes a catch-all definition for situations where Completion is not described in the Works Information.[45] The ECC does not cater for mechanical completion, practical completion or substantial completion and any inclusion of such terms in the Works Information should be avoided. Any requirement for these types of completion needs to be catered for within the description of Completion in the Works Information. Completion is when the *Contractor* has done everything the Works Information requires him to do by the Completion Date.[46] This could include as-built drawings, operation manuals, or the requirement for certain tests to have been achieved, or you could ask to receive these things within a specified period after Completion. In the latter case, there is little incentive for the *Contractor* to produce the described items since he would have been paid at Completion prior to submitting the documents.

[44] ECC2 clause 11.2(13).
[45] ECC3 clause 11.2(2).
[46] ECC2 clause 11.2(13); ECC3 clause 11.2(2).

Completion can only take place when the *Contractor* has corrected notified Defects which would have prevented the *Employer* from using the *works*[47] or Others from doing their work (ECC3 only[48]). This correlates with clause 43.1 (ECC2) or clause 43.2 (ECC3) where Defects notified before Completion need only be corrected after Completion, except obviously those that prevent the *Employer* from using the *works* – otherwise Completion would not be achieved in the first place.

It is most important to describe Completion in the Works Information in objective terms such that the *Project Manager* can determine whether Completion has been achieved or not.[49] Difficulties may arise where the *Employer* fails to describe Completion in the Works Information. *Employer*s often omit to describe Completion because they are still thinking in terms of practical or substantial or mechanical completion. Because practical or substantial or mechanical completion are not included in the Works Information, nor described, the problem remains. Although ECC3 has a get-out clause,[50] it is still recommended to include a description of Completion in the Works Information.

Completion is a status and it is a separate concept from the Completion Date. Completion could take place on, before or after the Completion Date. The *Project Manager* decides the date of Completion[51] in accordance with the definition included in the Works Information.

- The Works Information should include objective statements on what has to be completed for Completion to be achieved.
- The objective statement for Completion might need to include temporary as well as the permanent *works* solution, for example temporary staircases to work shafts – they are not part of the final *works* but are intended for use by a follow-on contractor as access.

1.8.2 Take over

Take over takes place within two weeks after Completion.[52] The principal reason for identifying take over is to mark the point where loss of or damage to the *works* becomes an *Employer*'s risk.[53] Take over may trigger a compensation event where it happens before both Completion and the Completion Date[54] unless the take over falls within the parameters described in clause 35.3 (ECC2) or clause 35.2 (ECC3) and is included in the Works Information. The *Employer* does not have to take over the *works* before the Completion Date if the optional statement in the Contract Data part one was included[55] stating that the *Employer* is unwilling to take over the *works* before the Completion Date.

Take over is also important because it is the primary reason for an *Employer* to choose the secondary Option pertaining to sectional completion.[56] If the *Employer* wants to take over parts of the *works* as they are completed, then this secondary Option should be chosen as part of the contract strategy, where the *completion date* for different *sections* of the *works* may be described. Take over for each part would take place within two weeks of each relevant Completion.

It should be noted that there is no allowance within the ECC to have different *defects dates* for different *completion dates*. The *defects date* is a period of time after Completion of the whole of the *works*, therefore if the contract is of long duration with sectional completion and multiple take over, the *defects date* is still triggered by the last Completion – that of the whole of the *works*.

[47] ECC2 clause 11.2(13).
[48] ECC3 clause 11.2(2).
[49] Clause 30.2.
[50] Clause 11.2(2).
[51] Clause 30.2.
[52] ECC2 clause 35.2; ECC3 clause 35.1.
[53] Clause 80.1.
[54] Clause 60.1(15).
[55] ECC2 clause 35.2; ECC3 clause 35.1.
[56] ECC2 Option L; ECC3 Option X5.

Sections of the *works* completed earlier would therefore be subjected to a longer period during which the *Contractor* has to correct Defects and so on. The *Employer* in the Contract Data part one can rectify this, however, where he could amend the statement in the Contract Data to give different *defects dates* for different *sections* of the *works*. This could increase the administrative burden and may not work if the functioning of the *works* as a whole is dependent on the adequate functioning of all its parts.[57]

Take over marks the point were loss or damage to the *works* becomes the *Employer*'s risk.

1.8.3 Schedule of Cost Components The Schedule of Cost Components (SCC) lists the components of cost for which the *Contractor* is reimbursed in Actual Cost (ECC2) or Defined Cost (ECC3) situations.[58] The list interacts with the data provided by the *Contractor* for the SCC in Contract Data part two. It is not to be confused with a schedule of rates.

1.8.4 Defects Defects are defined in the contract as a part of the *works* that is not in accordance with the Works Information.[59] In other words, if the requirement is not included in the Works Information as something that the *Contractor* is to provide, not providing it cannot be a Defect. Every defect need not be a Defect and instructing the *Contractor* to correct something that is not a Defect (although it could be a defect) is in fact a compensation event.

1.8.5 Contract Date The Contract Date is the date when the contract comes into existence.[60] This would generally depend on how offer and acceptance is effected as governed by jurisdiction. The Contract Date would generally be labelled as such in the Articles of agreement/form of contract[61] signed by both Parties since there is no space provided for it in the Contract Data.

The Contract Date should not be confused with *starting date*, which is when time (programme) starts, and when the *Contractor* is on risk.

1.8.6 Defects date There is no defects liability period or maintenance period *per se* in the ECC. The period within which the *Contractor* is obliged to correct Defects free of charge is the period between Completion of the whole of the *works* and the *defects date*. The *defects date* is stated in the Contract Data part one as being a number of weeks after Completion of the whole of the *works*, usually 52 weeks, sometimes 26 weeks, but it would depend entirely on the *works*. Since the *defects date* is dependent on Completion, it does not matter whether Completion is before, on or after the Completion Date, since the *defects date* runs from Completion and not the Completion Date.

The *defects date* provides three purposes in the ECC.

(1) It is the last date by which either the *Supervisor* or the *Contractor* can notify Defects.[62]
(2) It is the date on which the *Supervisor* issues the Defects Certificate (unless a Defect notified before the *defects date* has a *defect correction period* that ends later than the *defects date*, in which case the Defects Certificate is issued on the later date).[63]
(3) It sets the final date for the notification of compensation events.[64]

1.8.7 Defect correction period The *defect correction period* is not to be confused with the *defects date* or the defects liability period or maintenance period in traditional contracts. The

[57] If earlier Defects are corrected, however, it should work.
[58] For compensation events in options A and B; for all contract payments under options C, D and E.
[59] ECC2 clause 11.2(15); ECC3 11.2(5).
[60] ECC2 clause 11.2(3); ECC3 11.2(4).
[61] See mention of this in Appendix 2 of Book 2.
[62] Clause 42.2.
[63] ECC2 clause 43.2; ECC3 clause 43.3.
[64] Clause 61.7.

defect correction period is the maximum period within which a *Contractor* must correct a notified Defect. It is not the whole period from Completion to the *defects date* but a period of, for example, two weeks. Each Defect must be corrected within this period, from its notification or after Completion.

If a Defect is notified before Completion and it does not prevent the *Employer* from using the *works*,[65] then the Defect must be corrected at Completion[66] and it must be corrected within its *defect correction period*, say two weeks. If there are many Defects, the *Contractor* will have to start the correction process before Completion if he is to correct them all within the two weeks.

Defects that are notified after Completion must still be corrected within their *defect correction period*, say two weeks, but the period starts when the Defect is notified.[67]

There are two further aspects to the *defect correction period* that require some discussion. First, users of maintenance contracts might wish to amend the core clause that requires Defects to be corrected only after Completion. Many contracts require Defects to be corrected at the time of notification; for example, leaving out a danger sign for an overhead line should be immediately corrected. In this case, the third sentence of ECC2 clause 43.1 or the second sentence of ECC3 clause 43.2 would be amended via a secondary Option Z clause to read 'This period begins when the Defect is notified for all Defects.' If the contract is an Option C, D or E contract, Disallowed Cost[68] could also be amended via a secondary Option Z clause so that the bullet point reading 'correcting Defects after Completion' is changed to read 'correcting Defects'.

Second, different *defect correction period*s may be introduced for different categories of Defects. The *defect correction period*s for the categories would be stated in the Contract Data part one and the categories described in the Works Information. This may be useful where some Defects require rectification immediately because they would inhibit the functioning of the *work*s while other, more cosmetic Defects, may be corrected within two or four weeks. Of course, the key is to describe them carefully in the Works Information and to state in Contract Data part one that this is where the descriptions are to be found.[69*]

In general, however, careful thought should be invested in the *defect correction period*. Remember also that anything can be changed by agreement and if the *Contractor* finds that a particular *defect correction period* is too tight regarding a large Defect, the *Project Manager* would be advised to allow the *Contractor* more time to correct the Defect properly.

Various incentive schemes regarding Defects have been used. Although the *Contractor* is supposed to notify his own Defects, traditionally *Contractor*s have not done so and may have been happy to get away with not correcting defects that have not been spotted by the employer and his engineer. In order to encourage the *Contractor* to notify and then correct his own Defects, some *Employer*s change the ECC to disallow the costs of Defects notified by the *Supervisor* but allow the costs of Defects notified by the *Contractor*.[70] Others split the cost of correcting Defects between the two Parties equally. In Options C, D and E, this may simply encourage the *Contractor* not to notify Defects but correct them anyway, since the cost of such correction would be paid as an Actual Cost (ECC2) or Defined Cost (ECC3) unless noticed by the *Project Manager* or the *Supervisor*.[71]

[65] If the Defect prevents the *Employer* from using the *works*, then Completion cannot be achieved (ECC2 clause 11.2(13); ECC3 clause 11.2(2)).
[66] ECC2 clause 43.1; ECC3 clause 43.2.
[67] ECC2 clause 43.1; ECC3 clause 43.2.
[68] ECC2 clause 11.2(30); ECC3 clause 11.2(25).
[69] see the example in Chapter 5.
[*] ECC3 caters for this sort of categorisation in Contract Data part one.
[70] This will not work with option A and B contracts.
[71] Note, however, that not all Defects are Disallowed Cost.

1.8.8 Possession (ECC2) or Access (ECC3)

Possession/access does not mean that the *Contractor* possesses the Site but that he has been given licence to occupy the Site up to the date of Completion, to enter the land and carry out the work.[72]

The *possession date* (ECC2) or *access date* (ECC3) is different from the *starting date*. The *starting date* is the date when the *Contractor* starts the work that he is required to do before he comes on to the Site. The *possession/access date* is when he may start work on Site.[73] Mobilisation can take place before the *possession/access date* but work on Site may only start on the *possession/access date*. Both the *starting date* and the *possession/access dates* are identified in the Contract Data.

The *Contractor* also identifies on his programme the date by which he requires possession/access, and this date may be later than the *possession/access date* included in the Contract Data (but it may not be earlier) while still achieving Completion on or before the Completion Date. It is a compensation event if

- the *Employer* does not give possession by the later of the *possession date* and the date by which possession is required in accordance with the Accepted Programme[74] (ECC2 only), or
- the *Employer* does not allow access to and use of each part of the Site by the later of its *access date* and the date shown on the Accepted Programme,[75] (ECC3 only).

1.8.8.1 Possession access on operational facilities

Some projects involve working on facilities which have to be repaired, maintained or renewed while the facility is either kept in operation or during limited periods of time when such works can be undertaken, for example night-time possessions/access, weekend working, annual shutdown for boiler cleans or maintenance on power stations. On such projects possession/access may have to be redefined as the *Contractor* will only have possession/access of the Site/*working areas* at these limited times, say between 11 pm and 5 am. Thereafter the facility will return/be taken over by the *Employer* for his use.

Late return of these types of facilities will also need to be considered and it is usual for there to be delay damages which deal with the late return/take over of the facilities after a period of possession/access by the *Contractor.* These types of damages usually relate to loss of use of facilities, loss of production/income, etc.

These types of requirements can be incorporated by carefully drafted secondary Option Z clauses.

1.8.9 Amending the contract

Great care and consideration should be given prior to amending the ECC. The contract has gone through a great deal of consultation with the construction industry. The contract can therefore be considered to be an industry-agreed standard. Amending the contracts is not something to be encouraged; however, the reality of everyday life means that such an industry-agreed contract cannot deal with all the many and varied situations in which clients find themselves. Examples of these unique circumstances have been referred to in the discussion on possession.

If rewording or redrafting is required it is suggested that it is firstly developed/undertaken by those who understand the *Employer*/the facilities and the particular problems and then these requirements are translated into the contract by legal advisers who should be required to ensure that they draft such clause(s) in keeping with the ECC contract.

1.9 Terminology not used in the ECC

1.9.1 Extension of time

There is no term 'extension of time' in the ECC. Part of a compensation event quotation is a delay to the Completion Date, which is assessed as the length of

[72] B. Eggleston, *The New Engineering Contract: a Commentary*, Blackwell Science, Oxford, 1996, p. 144.
[73] Clause 30.1.
[74] Clause 60.1(2).
[75] Clause 60.1(2).

time that planned Completion is later than planned Completion shown on the Accepted Programme. Any delay to the Completion Date should not be assessed in isolation from the affect on the Prices.

1.9.2 Variations Any changes are termed compensation events under the ECC.

1.9.3 Claims The ECC does not provide for extension of time and variation and loss and expense 'claims' in the way that traditional contracts do. The word 'claim' is not used in the ECC and should not be accepted or considered.

1.9.4 Delay and disruption There is no such term as 'delay and disruption' under the ECC. The effects of such changes are managed through the compensation event procedure. Time aspects of a delay to the Completion Date, including any disruption to the programme are dealt with through a change to the programme. The financial aspects of a delay to the Completion Date and any disruption to the programme are dealt with through a change to the Prices. The impact of an event is always separated into time and money; there is no separate heading for delay and disruption.

1.9.5 Loss and expense There is no such concept as 'loss and expense' in the ECC. All events that could entitle the *Contractor* to time and money are listed in section 6 of the core clauses (compensation events) and the procedures for notifying a compensation event and the details of what the *Contractor* may quote for are included in these clauses.

1.9.6 Traditional roles There is no Engineer/Architect/Purchaser or Employer's Agent in the ECC. The *Project Manager* and the *Supervisor* fill the roles of the *Employer*'s representatives.

There is no mention of either the designer or quantity surveyor in the ECC. These roles, if required, are undertaken via the *Project Manager.*

1.9.7 Subjective measurements For the most part, subjective measurements have been eradicated from the ECC.

If work were to be performed 'to the satisfaction of the Engineer', the *Contractor* may find this impossible to price for since he does not know what this measurement is, and he might find it frustrating if the Engineer is a difficult person. Other consequences could result, such as an increase in the risk portion in the price.

If, 'in the opinion of the Engineer' something is not right, this again is not measurable and not something for which the *Contractor* can price.

What is reasonable to one person may not be reasonable to another. Certainly, taking 'reasonable' steps or using 'reasonable' endeavours is not measurable and disputes may result because of a difference in opinion. Subjective measures are not fair and it is not right to expect a *Contractor* to take the risk for human dynamics. None of these terms are used in the ECC.[76]

1.9.8 Preliminaries Preliminaries do not require a separate mention in the ECC. All items that would traditionally have been included under the heading of 'preliminaries' are now included either in the Prices (for Options A and B) or in the Charges or Equipment section of the Schedule of Cost Components or Shorter Schedule of Cost Components[77] (for all main Options)

1.9.9 Provisional sums The ECC does not refer to and does not cater for the use of provisional sums. The reason for this is that the ethos of the ECC is all about greater certainty of outcome in terms of cost, time and quality.

[76] Although 'reasonably' is used in clauses 61.6 and ECC2 63.6 or ECC3 63.7.
[77] ECC2 clause 44 in the full Schedule of Cost Components; clause 4(e) of the Shorter Schedule of Cost; ECC3 clause 44 and 2 Equipment in FSCC: ECC3 clause 41, 42 or 2 Equipment of the SSCC.

Provisional sums are recognised as having been used to include ill-defined or unscoped works in contracts. Indeed the JCT form of contract tries to address this with defined and undefined provisional sums, the distinction being that a defined provisional sum has sufficient detail to enable the *Contractor* to allow for the time implications of the work involved. Undefined provisional sums cover work which cannot be adequately defined and are therefore included as *employer* allowances in the contract sum. In the JCT form of contract there are specific clauses which relate to the expenditure of provisional sums – clauses 13.3 and 13.4. The ECC has no such provisions.

Where an *Employer* includes a provisional sum in an ECC contract, a number of issues are raised, especially in Option A.

- How are these provisional works assessed/valued?
- Are they to be included in the *activity schedule* and Accepted Programme?
- Can this money only be expended on the instruction of the *Project Manager*?
- What right has the *Project Manager* to issue an instruction relating to provisional sums (bearing in mind it is a fixed-price lump sum)?
- What happens if the provisional sum is wrong? Who owns the under-spend? Who owns the over-spend?
- How do you judge when a compensation event has occurred if there is little or no scope or Works Information?
- How will any saving on provisional sums be repaid to the *Employer*, if there are no instructions or compensation events?

All of these issues need to be discussed and agreed with the *Employer*.

There are two ways in which work of a provisional nature can be included in an ECC contract.

(1) A description of the work is included in the Works Information. This description should include the scope and any other factors such as the specification, timing and restraints of the work that affect and enable the *Contractor* to price the work, including a list of assumptions made by the *Employer*. The description could almost be considered as a mini work package. This description will then be used as the basis of the test to determine if a compensation event has happened or is likely to happen along with the rest of the Works Information. Clearly, if the *Employer*'s assumptions prove to be incorrect, any changes to the Works Information to rectify those assumptions are a compensation event.

(2) If the *Employer* is unable adequately to define this work then he should have an internal budget/allowance if he believes that the work is likely to occur. If or when it does arise the *Project Manager* will then issue an instruction, which will be a change to the Works Information, and it will be a compensation event.

1.9.9.1 Example The following is an example of how a company managed the problem of provisional sums. Although the above two methods are the recommended route, the following exhibits the flexibility that can make the contract work. This example was characterised by the *Employer*'s/*Project Manager*'s desire to include provisional sums being driven by

- a need to include the potential full value of the works in the contract – an internal budgetary control problem. They did not seem to operate an internal contingency system and did not want to be seen to be going back for more money even though it should have been part of the budget for the project,
- an inability to be able to clarify the scope/details of the project.

The *Project Manager* was also driven by the desire to be seen to perform well on his Key Performance Indicators (KPIs). These included the number of instructions and compensation events issued. Consequently he was reluctant to issue an instruction with regard to the provisional sums or compensation events because it would affect his KPIs.

It was agreed that:

- the provisional sums were for expenditure by direction of the *Project Manager*; however, he would not issue an instruction or compensation event until the provisional sum was expended,
- assessment of expenditure against the provisional sum would be by using the Schedule of Cost Components,
- any under-expenditure would be subject to an instruction/ compensation event,
- the work would be included in the *activity schedule* and on the Accepted Programme so that the time consequences of any change in the scope of the provisional sum or other critical path activities on the provisional sum could be assessed,
- the work would be better defined with assumptions to enable easier determination of compensation events.

The foregoing comments are based on the assumption that there are no Option Z clauses (additional *conditions of contract*) included in the contract that facilitates the use of provisional sums.

1.9.10 Prime Cost Sums In traditional contracts, Prime Cost Sums are included in contracts for expenditure against works undertaken by nominated subcontractors or suppliers. The ECC does not permit nomination in this way because of the contractual complication it introduces if things go wrong and therefore Prime Cost Sums are not required.

1.9.11 Interim valuations Interim valuations under the ECC are called the amount due and include the Price for Work Done to Date. It is a duty of the *Project Manager* to assess the amount due. There is no duty for the *Contractor* to submit an application.

1.9.12 Other contractual aspects There are other contractual aspects that users may be used to seeing in traditional forms of contract that do not appear as a matter of course in the ECC. Some of these are listed above in Table 1.3 as well as the place in which they should be inserted.

Table 1.3. Other contractual aspects

Contractual aspect required	How to include it in the ECC
To maintain confidentiality	Insert as an Option Z clause
To proceed regularly and diligently	Insert in Works Information
To inspect the Site	Insert in Works Information
To set out the *works*	Insert in Works Information
To perform variations	This is already included in the ECC by virtue of clause 29.1*
To submit interim applications	Not a duty of *Contractor* but of *Project Manager* (clause 50.4)
To notify on completion	Not a duty of *Contractor* but of *Project Manager*
To conform to statutes	This is not strictly required since it is the duty of everybody to adhere to the law. This obligation could be reiterated in the Works Information if deemed absolutely necessary

1.10 Commentary on other aspects of the ECC

1.10.1 Clarity In general, clarity is an important part of the ECC. Clear clauses are important to the working of the contract.

1.10.2 Contractual forms Neither the ECC conditions of contract nor the Guidance Notes provide standard forms for

- form of tender (although a sample is provided in the ECC Guidance Notes),

*ECC3 clause 27.3.

- Articles of agreement/form of contract (although a sample is provided in the ECC Guidance Notes),
- form of performance bond,
- form of guarantee.

There is also no stated order of precedence for documents and no place to state the Contract Date[78] in the ECC.

- There is no hierarchy of documents in NEC contracts.
- The one exception to this rule is that the *Employer*'s Works Information takes precedence over the *Contractor*'s proposals. The acceptance does not change the *Contractor*'s liability to Provide the Works in accordance with the Works Information.

1.11 How does the ECC affect the way you work?

1.11.1 Mutual trust and cooperation clause 10.1

It is this clause that distinguishes the NEC ECC from traditional contracts and you need to bear it in mind all the time.

1.11.2 Fair and reasonable

Part of being trusting and cooperative is being fair and reasonable. Is it fair to deprive the *Contractor* of his profit for a matter that he cannot control? Is it reasonable to expect the *Contractor* to foresee what you expect of him if it is not included in the Works Information? Is it fair to deprive the *Employer* of the opportunity to consider options through early warnings?

1.11.3 Work within your given role

If you are the *Project Manager* or the S*upervisor* or you have been delegated a part of these roles, then you may only do what you are allowed to do under the contract. The *Supervisor* may not change the Works Information and he may not accept a Defect. The *Project Manager* may not notify a Defect and he may not instruct a search for a Defect.

1.11.4 Use the procedures in the contract

The procedures in the contract are well described and well set out. They tell you how to fill your role in the contract. Following the procedures in the contract will introduce trust and fairness into your dealings with each other and will help to fulfil your own, your company's and your client's[79] objectives.

1.11.5 Existing knowledge of the law of contract

The ECC, although radical in its approach, does not require you to forget your existing knowledge and experience of the law of contract.

1.11.6 Proactive project management

The contract is designed to facilitate proactive and collaborative project management, through the use of procedures such as the early warning mechanism and the compensation event procedure. If the project management team adopts this approach, then the contract has the chance of being a success.

1.11.7 Work with each other

Both parties to a contract are there to help each other and to fill the mutual objective of completing the project on time and to budget. If you work with each other, you increase your chances of success.

YOU make the project a success

No matter how good or bad the contract, it is the people working the contract who make it a success or not. Whether the project is a success is up to you.

[78] See Appendix 2 of Book 2 where the Contract Date can be inserted into the form of contract/ Articles of agreement.
[79] Where your company is not the *Client* but is employed to assist the *Client*.

1.12 Summarising the ECC

The ECC provides an opportunity to enhance contractual arrangements.

Many commentators have called the ECC a partnering contract. In the authors' view, the ECC can be as partnering or non-partnering as you want it to be. It depends on the attitude of the parties. The contract has features which lend themselves to the partnering model.[80]

The ECC is radically different from other, traditional, forms of contract. It is essential that you realise from the outset what it is you wish to achieve and also to recognise that, in order to achieve the objectives set, you will be required to train yourself, your staff, your contractors, subcontractors and suppliers in its use. As you progress through this series, you will see the strong inter-reliance on information between everyone in the supply chain.

It is also important to realise that the implementation of the use of the ECC could have implications for your own internal procedures, systems and business.

Because of the ECC structure, commonality of approach and flexibility the comments made throughout this book apply equally to employers, contractors, subcontractors and sub-subcontractors.

1.13 Potential benefits

The ECC offers potential benefits to its users through

- managing contracts more efficiently and effectively,
- providing greater certainty of outcome,
- facilitating final account agreement very shortly after Completion,
- compensation events providing a time and money package for change,
- an updated programme facilitating time and cost management,
- encouraging proactive management,
- encouraging parties to work together.

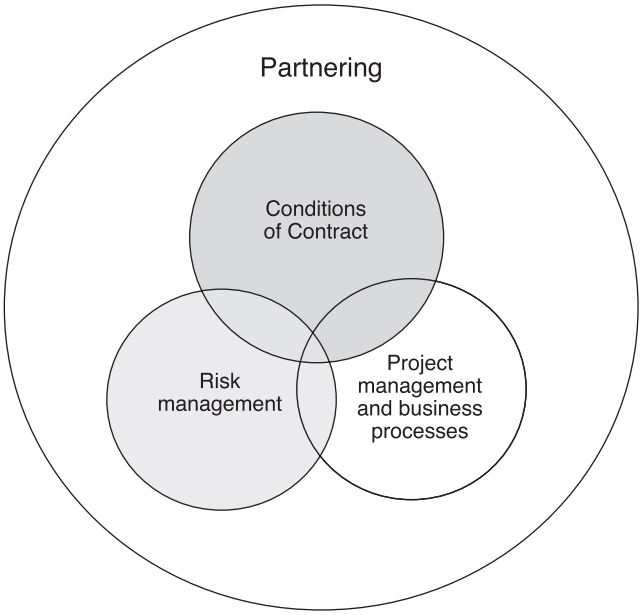

Fig. 1.3. Key aspects of the ECC

Figure 1.3 shows the key features of the ECC Contract. The ECC incorporates conditions of contract, risk management and a project management and business process management tool. It is also surrounded by the possibility and opportunity to use the contract in the context of a collaborative working environment and partnering.

[80] See Chapter 1 of Book 2 for a discussion on partnering.

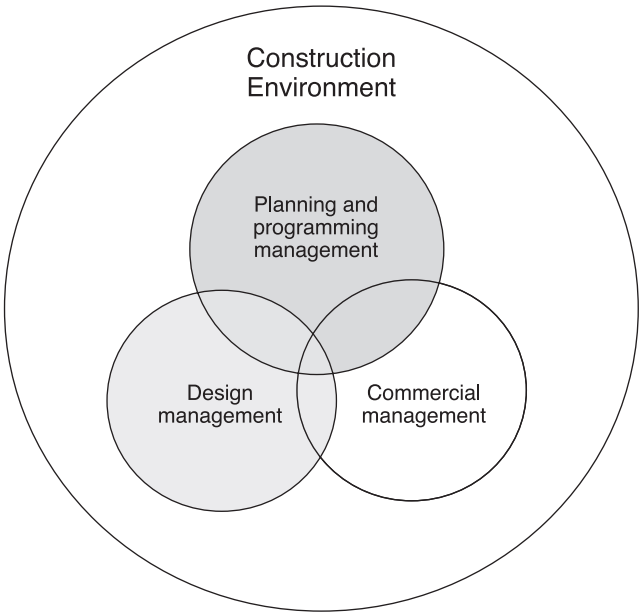

Fig. 1.4. The key requirements of change control

The ECC brings together three core elements of change control, namely planning, commercial and design management (see Fig. 1.4).

The ECC is all about improving management practice, reducing the number of disputes and improving contract administration to achieve:

Greater certainty of outcome

Appendix 1 Summary of differences between ECC2 and ECC3

Clause number		Heading change	Clause content change	ECC2 clauses not in ECC3	New clause in ECC3
ECC2	ECC3				
Core Clauses					
	10				
	10.1		✓		
	11				
	11.1				
11.2(1)	11.2(11)				
11.2(2)	11.2(10)				
11.2(3)	11.2(4)				
11.2(4)	11.2(13)				
11.2(5)	11.2(19)				
11.2(6)	11.2(16)				
11.2(7)	11.2(15)				
11.2(8)	11.2(18)		✓		
11.2(9)	11.2(17)		✓		
11.2(10)	11.2(12)				
11.2(11)	11.2(7)				
11.2(12)	11.2(3)				
11.2(13)	11.2(2)		✓		
11.2(14)	11.2(1)				
11.2(15)	11.2(5)		✓		
11.2(16)	11.2(6)				
11.2(17)	11.2(8)		✓		
	11.2(9)				✓
	11.2(14)				✓
	12				
	12.1				
	12.2				
	12.3				✓
	12.4				✓
	13				
	13.1		✓		
	13.2				
	13.3				
	13.4		✓		
	13.5		✓		
	13.6				
	13.7				
	13.8				
	14				
	14.1				
	14.2				
	14.3		✓		
	14.4				
	15	✓			
	15.1		✓		
	16				
	16.1		✓		
	16.2		✓		
	16.3		✓		
	16.4		✓		
	17				

Clause number		Heading change	Clause content change	ECC2 clauses not in ECC3	New clause in ECC3
ECC2	ECC3				
Core Clauses					
	17.1				
18				✓	
18.1	27.4				
19	18				
19.1	18.1		✓		
	19				✓
	19.1				✓
	20				
	20.1				
	21				
	21.1				
	21.2		✓		
	21.3				
21.4				✓	
21.5				✓	
	22				
	22.1				
	23				
	23.1				
	24				
	24.1		✓		
	24.2				
	25	✓			
	25.1		✓		
33.2 (part)	25.2				✓
	25.3				✓
	26				
	26.1		✓		
	26.2				
	26.3		✓		
	27	✓			
	27.1				
28				✓	
28.1	27.2		✓		
29				✓	
29.1	27.3				
	30	✓			
	30.1		✓		
	30.2				
	30.3				✓
	31				
	31.1				
	31.2		✓		
	31.3				
	32				
	32.1				
	32.2				
	33	✓			
	33.1		✓		
33.2				✓	
	34				
	34.1				
	35				
35.1				✓	
35.2	35.1		✓		
35.3	35.2				
35.4	35.3				
	36				
	36.1		✓		
	36.2				
	40				

Clause number		Heading change	Clause content change	ECC2 clauses not in ECC3	New clause in ECC3
ECC2	ECC3				
Core Clauses					
	40.1		✓		
	40.2				
	40.3				
	40.4				
	40.5				
	40.6				
	41				
	41.1				
	42	✓			
	42.1		✓		
	42.2		✓		
	43				
	43.1		✓		
43.1(part)	43.2		✓		
43.2	43.3		✓		
43.3	43.4		✓		
	44				
	44.1				
	44.2				
	45				
	45.1		✓		
	45.2				✓
	50				
	50.1		✓		
	50.2		✓		
	50.3				
	50.4				
	50.5				
	51				
	51.1				
	51.2		✓[a]		
	51.3		✓		
51.4				✓	
51.5	51.4		✓		
	52	✓			
	52.1		✓		
	60				
	60.1(1)		✓		
	60.1(2)		✓		
	60.1(3)		✓		
	60.1(4)		✓		
	60.1(5)		✓		
	60.1(6)				
	60.1(7)				
	60.1(8)				
	60.1(9)				
	60.1(10)		✓		
	60.1(11)				
	60.1(12)		✓		
	60.1(13)		✓		
	60.1(14)		✓		
	60.1(15)				
	60.1(16)		✓		
	60.1(17)		✓		
	60.1(18)				
	60.1(19)				✓
	60.2		✓		
	60.3		✓		
	61				
	61.1		✓		
	61.2				
	61.3		✓		

Clause number		Heading change	Clause content change	ECC2 clauses not in ECC3	New clause in ECC3
ECC2	ECC3				
Core Clauses					
	61.4		✓		
	61.5				
	61.6				
	61.7				
	62				
	62.1		✓		
	62.2		✓		
	62.3		✓		
	62.4				
	62.5				
	62.6				✓
	63				
	63.1		✓		
	63.2		✓		
	63.3		✓		
	63.4				✓
63.4	63.5				
63.5	63.6		✓		
63.6	63.7		✓		
63.7	63.8		✓		
	63.9				✓
	64				
	64.1		✓		
	64.2		✓		
	64.3				
	64.4				✓
	65				
	65.1		✓		
	65.2				
	70	✓			
	70.1		✓		
	70.2		✓		
	71				
	71.1				
	72				
	72.1				
	73				
	73.1				
	73.2				
	80				
	80.1		✓		
	81				
	81.1				
	82				
	82.1				
	83				
	83.1				
	83.2				
	84				
	84.1				
	84.2		✓		
	85				
	85.1		✓		
	85.2				
	85.3				
	85.4				
	86				
	86.1		✓		
	87				
	87.1				
	87.2				
	87.3				

Clause number		Heading change	Clause content change	ECC2 clauses not in ECC3	New clause in ECC3
ECC2	ECC3				
Core Clauses					
90				✓	
90.1				✓	
90.2				✓	
90.3				✓	
90.4				✓	
90.5				✓	
91				✓	
91.1				✓	
91.2				✓	
91.3				✓	
91.4				✓	
91.5				✓	
91.6				✓	
91.7				✓	
92				✓	
92.1				✓	
92.2				✓	
93				✓	
93.1				✓	
93.2				✓	
94	90				
94.1	90.1		✓		
94.2	90.2		✓		
94.3	90.3				
94.4	90.4		✓		
94.5	90.5		✓		
95	91				
95.1	91.1		✓		
95.2	91.2				
95.3	91.3				
95.4	91.4				
95.5				✓	
	91.5				✓
95.6	91.6		✓		
	91.7				✓
96	92				
96.1	92.1		✓		
96.2	92.2		✓		
97	93				
97.1	93.1		✓		
97.2	93.2		✓		
Option A					
11.2(20)	11.2(30)		✓		
	11.2(20)				✓
11.2(24)	11.2(27)		✓		
11.2(28)	11.2(22)		✓		
	31.4		✓		
	36.3		✓		
	54	✓			
	54.1		✓		
	54.2		✓		
	54.3		✓		
	63.10				✓[b]
63.8	63.12		✓		
63.10				✓	
63.11	63.14		✓		
	65.4		✓		
97.3	93.3				

Clause number		Heading change	Clause content change	ECC2 clauses not in ECC3	New clause in ECC3
ECC2	ECC3				
Core Clauses					
Option B					
11.2(21)	11.2(31)		✓		
11.2(25)	11.2(28)		✓		
11.2(28)	11.2(22)		✓		
	11.2(21)				✓
	36.3		✓		
	55	✓			
	55.1		✓		
	60.4		✓		
	60.5		✓		
	60.6		✓		
	60.7				✓
63.10				✓	
	63.10				✓[c]
63.9	63.13		✓		
63.11				✓[d]	
	65.4		✓		
Option C					
11.2(20)	11.2(30)		✓		
11.2(27)	11.2(23)		✓		
11.2(23)	11.2(29)		✓		
11.2(30)	11.2(25)		✓		
	11.2(20)				✓
	20.3				
	20.4		✓		
	26.4		✓		
	31.4		✓		
	36.3		✓		
36.5				✓	
	40.7				✓
	50.6		✓		
	52	✓			
	52.2		✓		
	52.3				
	53.1		✓		
	53.2				
	53.3		✓		
	53.4		✓		
53.5				✓	
	54	✓			
	54.1		✓		
	54.2		✓		
	54.3		✓		
	63.11				✓[e]
63.8	63.12		✓		
63.11	63.15				
	65.4		✓		
97.4	93.4		✓		
	93.6				✓
Option D					
11.2(21)	11.2(31)		✓		
11.2(23)	11.2(29)		✓		
11.2(27)	11.2(23)		✓		
11.2(30)	11.2(25)		✓		
	11.2(21)				✓
	11.2(33)				✓
	20.3				
	20.4		✓		
	26.4		✓		
	36.3		✓		

Clause number		Heading change	Clause content change	ECC2 clauses not in ECC3	New clause in ECC3
ECC2	ECC3				
Option D (cont'd)					
36.5				✓	
	40.7				✓
	50.6		✓		
	52	✓			
	52.2		✓		
	52.3				
53.1	53.5		✓		
53.2	53.6		✓		
53.3	53.7		✓		
53.4	53.8		✓		
53.5				✓	
	55	✓			
	55.1		✓		
	60.4		✓		
	60.5		✓		
	60.6		✓		
	60.7				✓
63.9	63.13		✓		
63.11	63.15				
	63.11				✓[f]
	65.4		✓		
97.4	93.5		✓		
	93.6				✓
Option E					
11.2(19)	11.2(32)		✓		
11.2(23)	11.2(29)		✓		
11.2(27)	11.2(23)		✓		
11.2(30)	11.2(25)		✓		
	20.3				
	20.4		✓		
	26.4		✓		
	36.4		✓		
36.5				✓	
	40.7				✓
	50.7		✓		
	52	✓			
	52.2		✓		
	52.3				
63.11	63.15				
	65.3		✓		
65.5				✓	
Option F					
11.2(19)	11.2(32)		✓		
11.2(22)	11.2(29)		✓		
11.2(26)	11.2(24)		✓		
11.2(29)	11.2(26)		✓		
	20.2		✓		
	20.3				
	20.4		✓		
	20.5				✓
	26.4		✓		
	36.4		✓		
36.5				✓	
	50.7				
	52	✓			
	52.2		✓		
	52.3				
	65.3		✓		
65.5				✓	

Clause number		Heading change	Clause content change	ECC2 clauses not in ECC3	New clause in ECC3
ECC2	ECC3				
Option W1					
This Option is new to ECC3 and therefore has not been directly compared to ECC2. Although some of the clauses from core clauses 90 to 93 of ECC2 are incorporated within Options W1 and W2, a direct comparison does not fulfil the purpose of this table.					
Option W2					
This Option is new to ECC3 and therefore has not been directly compared to ECC2. Although some of the clauses from core clauses 90 to 93 of ECC2 are incorporated within Options W1 and W2, a direct comparison does not fulfil the purpose of this table.					
Option G					**Option X13**
G1.1	X13.1				
Option H					**Option X4**
H1.1	X4.1				
Option J					**Option X14**
J1.1 J1.2 J1.3	X14.1 X14.2 X14.3		✓		
Option K					**Option X3**
K1.1 K1.2	X3.1 X3.2		✓		
Option L					**Option X5**
L1.1	X5.1				
Option M					**Option X15**
M1.1	X15.1 X15.2		✓		✓
Option N					**Option X1**
N1.1 N2.1 N2.2 N3.1 N4.1 N4.2	X1.1 X1.2 X1.2 X1.3 X1.4 X1.5		 ✓ ✓		
Option P					**Option X16**
P1.1 P1.2	X16.1 X16.2		✓		
Option Q					**Option X6**
Q1.1	X6.1				
Option R					**Option X7**
R1.1 R1.2	X7.1 X7.2 X7.3				✓
Option S					**Option X17**
S1.1	X17.1				
Option T					**Option X2**
T1.1	X2.1		✓		
Option U					
This Option has not been incorporated into ECC3.					
Option V					
This Option has not been incorporated into ECC3.					

Clause number		Heading change	Clause content change	ECC2 clauses not in ECC3	New clause in ECC3
ECC2	ECC3				
Option X12					
This Option could have been used with ECC2 and is now incorporated directly into ECC3.					
					Option X18
This Option is completely new to ECC3. It incorporates elements of clause 21.5 of ECC2, which does not appear in ECC3.					
					Option X20
This Option is completely new to ECC3.					
Option Y(UK)2					
Y(UK)2 in the ECC2 and Y(UK)2 in ECC3 are not the same. Y(UK)2 in ECC2 incorporates elements of the adjudication and payment parts of the HGCR Act, whereas Y(UK)2 in ECC3 refers only to the payment parts of the HGCR. This is because the adjudication parts of the HGCR are referred to in Option W2 of ECC3. Y(UK)2 in ECC3 also deals with the payment parts of the HGCR Act in a different way to Y(UK)2 in ECC2. As a result, Y(UK)2 in ECC2 and Y(UK)2 in ECC3 are not directly comparable and will not be further addressed in this table.					
Option Y(UK)3					
Y(UK)3 in the ECC2 and Y(UK)3 in ECC3 are not the same. Y(UK)3 in ECC3 refers to the Contract Data and is written in a more positive way.					
Option Z					
Z1.1					
Schedule of Cost Components					
	Preamble		✓		
	1		✓		
	11		✓		
	12				
	13		✓		
	| 14				✓
	2		✓		
	21		✓		
	22		✓		
	| 23				✓
	| 24				✓
23	| 25		✓		
24	| 26		✓		
	| 27				✓
25	| 28		✓		
	3				
	31		✓		
	32		✓		
	4				
	41		✓		
	42		✓		
	43		✓		
	44		✓		
	5		✓		
	51				
	52				
	6				
	61				
	62				
	63		✓		
	7				

Clause number		Heading change	Clause content change	ECC2 clauses not in ECC3	New clause in ECC3
ECC2	ECC3				
Shorter Schedule of Cost Components					
	Preamble		✓		
	1		✓		
	11		✓		
12				✓	
13				✓	
	2		✓		
	21				
	22				
	23		✓		
	24		✓		
	25				
	26		✓		
	27				✓
	3				
	31		✓		
	32		✓		
	4		✓		
	41				✓
	42				✓
	43				✓
	44				✓
	45				✓
	5		✓		
51				✓	
52				✓	
	51				
	6				
	61				
	62				
	63				
	7				

[a]Incorporating clause 51.4.
[b]Was 63.2 of the core clauses in ECC2.
[c]Was 63.2 of the core clauses in ECC2.
[d]Has become part of 63.13 in ECC3.
[e]Was 63.2 of the core clauses in ECC2.
[f]Was 63.2 of the core clauses in ECC2.

2 Roles in the Engineering and Construction Contract

Synopsis

This chapter describes the roles adopted in the ECC including

- How to designate a role
- Discussion of the roles described in the ECC
- Discussion of the project team
- How the ECC affects each of the roles

2.1 Introduction

There is no doubt that of the three objectives used in the drafting of the ECC (i.e. stimulus to good management, clarity and simplicity, flexibility), it is stimulus to good management that is the most important. It is certainly the primary reason why so many employers choose to use the ECC. The ECC has been drafted with the conscious objective of promoting good management practice generally, and collaboration between the parties to their mutual benefit and to the benefit of the project overall.

Two of the procedures in the contract that facilitate the stimulus of good management are

- a clear division of function and responsibility in order to identify accountability and motivate people to play their part,
- specific time limits within which the various parties are to take the actions described for them with 'sanctions' for failure to do so.

In general, when the ECC states that an action is required, the person who is to carry out the action is stipulated and a time frame for the carrying out of the action is included. Each Party to the contract therefore knows who of the other Party should be taking what actions.

> If you add additional actions/duties in the Works Information, remember to state who carries out that duty and stipulate the time frame if it is different from the default *period for reply.*

2.2 Roles in the ECC

The ECC identifies and describes various roles for the people who are involved in the contract. Some of the people carrying out a role might be part of a project team or in some cases might undertake more than one of the roles. The following list includes the roles identified in the ECC.

- *Project Manager*
- *Supervisor*
- *Employer*
- *Contractor*
- Subcontractor
- Others
- delegates
- *Adjudicator*
- *tribunal*.

> There is no defined role of designer or quantity surveyor in the ECC. These functions are fulfilled where required through the *Project Manager.*

2.3 How to designate a role

The role you have been assigned under the contract does not reflect on your job title or your standing in the organisation. Being named as the *Project Manager* under the contract does not mean that you have to be a Project Manager in the company for which you work. Similarly, if your job title is Project Manager in the company for which you work, that does not mean that you should automatically be named as the *Project Manager* in an ECC contract.

The *Project Manager* and the *Supervisor* and the other roles in the ECC are not specific people in an organisation but roles. They can be thought of as roles that have various duties under the contract. In particular, the choice of *Project Manager* under the contract should be very carefully considered and it is recommended that the person chosen has the authority to be responsible for all the actions required by the *Project Manager.*[81]

[81] In particular, the *Project Manager* should be delegated sufficient authority to make decisions about the contract value.

Those identified in the contract under the various roles should be the names of people, not the names of organisations. They should also be the people who actually do the job, not the head of the section or the director of the organisation. This is particularly applicable when consulting engineering organisations are hired by employers to be the *Project Manager* and perhaps also the *Supervisor* in the contract. For example, the *Project Manager* should be Harry Haste, Organisation ABC Inc, Address, and not simply Organisation ABC Inc, Address.

The duties carried out by the *Contractor*, the *Project Manager*, the *Supervisor* and the *Employer* in the ECC are included in Appendix 2 to this chapter.

> The *Project Manager* should be the best person for the job, not necessarily the person whose job title is Project Manager.

2.4 Separation of roles and responsibilities

In traditional contracts such as JCT, ICE, FIDIC, IChemE, the Architect, the Engineer or the Supervising Officer is given total responsibility.

Under ICE contracts for instance, the Engineer is employed by the Client to plan and design the project, to draw up the contract, to obtain tenders, to let and supervise the work, to authorise payment and to issue certificates and to decide upon disputes. An architect under JCT contracts has a similar role. The Architect has a general periodic supervision of the work, but everyday site supervision falls on the *Employer* and on the *Contractor* who are required to keep on the works a 'competent person in charge'. The *Employer* may appoint a clerk of works whose duty is solely to act as inspector on behalf of the *Employer* but under the direction of the Architect.

In building contracts the design and commercial functions are shared between the Architect and the quantity surveyor whereas the civil engineer retains total responsibility for civil engineering contracts. These contracts put the Engineer, Architect and Supervising Officer on a pedestal with total responsibility and they expect these individuals to be all-knowing beings, who can supervise the works, manage its administration, and carry out all the other functions that the contract requires. They also have a quasi-judicial role to play in the first-stage settlement of any disputes that arise and this can lead to a conflict of interest where the dispute may reflect badly on their own performance.

The ECC recognised that the traditional composite role of the Engineer or Architect was undesirable, and it broke down these functions into four parts with the introduction of a new role of *Employer*'s *Project Manager*. It also recognised the need to have an independent arbiter in the event of disputes.

The four parts, to be occupied by four different people or firms are

(1) *Project Manager*,
(2) *Supervisor*,
(3) designer,
(4) *Adjudicator*.

These four parts are now described in more detail below.

2.4.1 The *Project Manager*

The role *Project Manager* carries with it certain actions and duties that have to be fulfilled as *Project Manager*. Those actions may, of course, be delegated, but in essence the *Project Manager* runs the contract and therefore if actions are delegated to various people, the *Project Manager* should be kept informed in order that the required decisions can be made.

The *Project Manager* is not equivalent to the Engineer in traditional contracts, and the *Supervisor* is not equivalent to the Clerk of Works in traditional contracts. There should be no comparisons and no similar actions taken. All actions are described in the ECC and the *Contractor* has the right to refuse to respond to an instruction given by a person who does not possess the authority

either by being named in the contract or through delegation. It is not essential for the *Project Manager* to possess the technical skills of an architect or engineer.

The *Project Manager* is squarely the *Employer*'s man. The contract does not state an obligation for him to act impartially and there is no adjudication role played by the *Project Manager*. The *Project Manager's* role is moderated by the requirement in Clause 10.1 for the *Project Manager* '...to act as stated in the contract and in a spirit of mutual trust and cooperation, and by the inclusion of the adjudication provisions'.

The *Project Manager* carries out the role of 'contract administrator' on behalf of the *Employer*. The *Project Manager* is the *Employer*'s agent and is responsible for looking after the *Employer*'s interests (but must act in a fair and unbiased manner). The *Project Manager* should be on site regularly, aware of progress and the other aspects of the contract such as changes to the Prices, Defects[82] and compensation events that allow him to take reasonable decisions under the contract. The *Project Manager* may delegate some of these actions to other people.

Employers should consider the number of duties and the responsibilities held by a *Project Manager* before naming the same person as *Project Manager* in many contracts. The role of *Project Manager* means that the *Project Manager* is involved in and has responsibility for virtually every aspect of the contract, except perhaps termination, the making of a payment and the duties that are the *Supervisor*'s. As such, to be allocated as *Project Manager* on too many projects could mean a dilution of the time spent on each of them and a consequent reduction of performance.

The *Employer* should also ensure that the *Project Manager* has been given the authority to carry out his duties, for example to commit the organisation financially on payment certificates, to increase the total of the Prices and to deduct delay damages.

2.4.2 The *Supervisor*

The *Supervisor* is required to ensure that the *works* are provided to the standard and performance required in the Works Information. The *Supervisor* witnesses or carries out tests and inspections, and notifies Defects but may not accept a Defect. The *Supervisor* may not give site instructions or otherwise change the Works Information. If some *Supervisor* actions are delegated to the *Project Manager,*[83] the latter needs to be very aware of the role that is being undertaken when carrying out certain actions. In other words, the *Project Manager* should be aware which of the duties are to be undertaken in the role of *Supervisor* and which are to be carried out as a delegate of the *Project Manager*.

For example, in an arbitration in 2001/2002, the roles in the contract were confused and the contract ended in dispute. The arbitration was based on a dispute over a number of compensation events and part of the *Contractor*'s defence for carrying out various works was to present as evidence letters written by the *Supervisor* instructing the *Contractor* to correct Defects in a certain manner. In fact, the specific descriptions of the corrections comprised changes to the Works Information, but the *Supervisor* had no such authority to instruct the changes. The *Supervisor* could only notify the Defect. The *Contractor* was therefore not obliged to make the changes, only to correct the Defect so that it complied with the Works Information.

2.4.2.1 The Relationship between the Project Manager and the Supervisor

The *Project Manager* and the *Supervisor* are independent of each other. They do not report one to the other, although communications are copied to each other; for example, the *Supervisor* copies Defect notifications to the *Project Manager*. In other words, there is no line reporting from the *Supervisor* to the *Project Manager* and the *Supervisor* carries out these duties independently of the *Project Manager*. Even if there is line reporting between the person named as

[82] Note that the *Project Manager* does not notify Defects, but he should still be aware of them.
[83] It is recognised that for some smaller jobs this would be the most efficient designation.

the *Project Manager* and the person named as the *Supervisor* as part of their job outwith the contract, this relationship cannot be mirrored in the duties they carry out under the contract.

2.4.3 The designer Separate functions for the *Employer*'s and *Contractor*'s designer are assumed but not mentioned in the contract. The actions required of the *Employer*'s designer, such as providing revised Works Information when changes occur and accepting the *Contractor*'s designs, are discharged by the *Project Manager*. Since the design provides a large potential for compensation events, this process needs to be carefully managed by the *Project Manager*.

2.4.4 The *Adjudicator* The *Adjudicator* is the person who provides the first level of dispute resolution under the contract. Assuming that the Parties cannot come to an agreement – a first attempt to resolve the dispute should always be made by the *Project Manager* and the *Contractor* – the dispute is referred to the *Adjudicator*. If the contract falls within the definition of a construction contract in the Housing Grants, Construction and Regeneration Act 1996, then the adjudication procedure should follow that detailed in option Y(UK)2 (ECC2) or Option W2 (ECC3), assuming this was chosen by the *Employer*. If the contract falls within the definition of a construction contract in the Housing Grants, Construction and Regeneration Act 1996 but option Y(UK)2 (ECC2) or Option W2 (ECC3)was not chosen by the *Employer*, then the default Scheme for Construction will apply. Otherwise, the adjudication procedure in the ECC pure will apply for ECC2; for ECC3, the *Employer* has to make an active choice of Option W1.

The introduction of an *Adjudicator* relieves the *Project Manager* from having to decide upon disputes in which there may be a conflict of interest.

2.4.5 Summary The different roles and responsibilities between the ECC and traditional contracts can be seen in Table 2.1.

Table 2.1. Comparison of roles and responsibilities between ECC and traditional contracts

Traditional contracts		Engineering and Construction Contract
Composite role		Clear division of functions and responsibility
• Engineer	{	• *Project Manager* • *Supervisor*
• Architect	{	• designer • *Adjudicator*

The ECC therefore provides clear division of function and responsibility and seeks to motivate people to play their part by making it in their professional and commercial interests to do so.

2.5 Other roles in the ECC

2.5.1 The *Employer* The *Employer* is a Party to the contract but plays very little part in the contract. The *Employer* appoints agents in the form of the *Project Manager* and the *Supervisor* to carry out the actions required under the contract. The *Employer* may become involved for elements of the contract such as termination and, of course, the *Employer* pays the *Contractor*.

2.5.2 The *Contractor* The *Contractor* is the other Party to the contract and is responsible for all the duties attributed to the *Contractor* under the contract, many of which are detailed in section 2 of the core clauses (the *Contractor*'s main responsibilities).

2.5.3 Subcontractors Subcontractors are defined in the contract and include all those bodies who contribute to the *Contractor*'s Providing the Works. The ECC does not cater for nominated Subcontractors for practical and legal reasons, for example renomination if a subcontractor/supplier goes into liquidation.

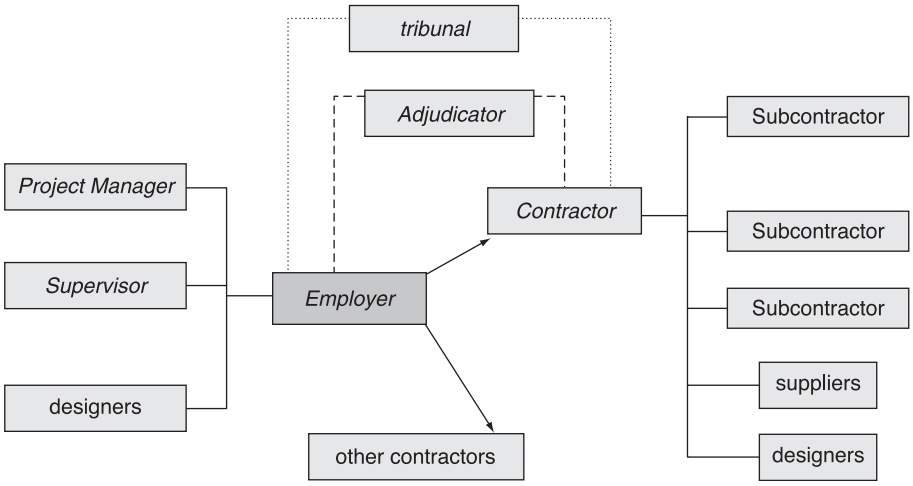

Fig. 2.1. Diagrammatic representation of the relationship of the contract roles

Alternatives to nomination under the ECC is for

- a list of acceptable subcontractors/suppliers to be named in the Works Information and the *Contractor* chooses with whom to subcontract or
- the *Employer* to employ them under a separate contract.

2.5.4 Others Others are defined in the contract as other people or organisations who do not directly have a role under the contract and would most likely include other contractors, public authorities and utility service providers (gas, electricity, telephone, etc.).

The Works Information should state who are the Others. Where stipulated in the Works Information the *Contractor* will be required to obtain approval for this design from Others (clause 27.1). The *Contractor* should also cooperate with Others.[84]

> An example of this may be where a new escalator box is to be constructed below an existing communications duct which has very sensitive fibre-optic cables which serve an essential service and are owned by a third-party utility. In this instance the Works Information should make it very clear about the ownership of the ducts and stipulate that it is the *Contractor*'s responsibility to liaise with and obtain approval for the temporary and permanent design solutions from Others.

In general, the *Employer* takes the responsibility for Others (1) who do not work within the times shown on the Accepted Programme or (2) who do not work within the conditions stated in the Works Information or (3) who carry out work on the Site that is not stated in the Works Information (clause 60.1(5) for both ECC2 and ECC3 but the third phrase appears in ECC3 only).

2.5.5 The *tribunal* The *tribunal* is the second level of dispute resolution where adjudication has not achieved the desired results. The *tribunal* is identified in Contract Data part one and could be litigation or arbitration.

Figure 2.1 shows the relationship between the Parties to the contract and the various roles within the contract.

2.6 The project team

Having looked at the philosophy behind the various roles and the contract's organisational requirements, this section goes on to provide the main points for consideration while establishing a project team.

[84] Clause 25.1.

The composition of the project team will depend on

- the *Employer*'s attitude towards having consultants and contractors as part of the project team,
- the bigger picture in terms of what other contracts are ongoing on the same site or by the same contractors and consultants and
- the particular procurement route of the contract, for example if the designer is a part of the contract team where the contract is *Employer*-designed or if the contract is a design-and-build contract.

2.6.1 Preparation of a project team

The ECC is a management tool that is designed to be used throughout the duration of the contract by all the team members. Its effectiveness depends on how well it is used by the team. In order to increase its effectiveness, it is important to ensure that the following issues are considered.

2.6.1.1 Choice and selection of personnel

The recognition of the benefits of management by collaboration means acknowledging that personalities count and so the choice and selection of personnel on the project is very important. This is one reason why the names of the *Project Manager* and the *Supervisor* are revealed when issuing the invitation to tender letter and accompanying tender documentation, and why the key people put forward by the tenderer are expected to be the same people who work on the project.

The team has to be prepared to cooperate and communicate with each other to make the project work. There is no doubt that a culture change needs to take place for the ECC to work. The people working on the contract are vital to promoting the culture of the ECC. Words on a paper carry little weight unless the people carrying out the contract follow through with the ethos of the ECC.

2.6.1.2 Training

The *Employer* should encourage all team members (including *Contractor*s and Subcontractors) to become familiar with the *conditions of contract* and the underlying concepts of the contract. This could involve joint training for all the project team, including the *Contractor* and his Subcontractors, so that the whole team knows the results of their actions and the impact on the whole team.

It is recommended that teams be brought together for workshops centred on the project so that real-life situations are described and recognised by the team.

2.6.1.3 Project organisation

The project organisation should contain chart and job descriptions and should include clear lines of communication so that everybody knows what everyone else is doing.

2.6.1.4 Management systems

The appropriate management systems for the project should be agreed by the team, put in place and implemented. Training should also be provided, if required. Figure 2.2 shows how an Employer's team would be traditionally organised.

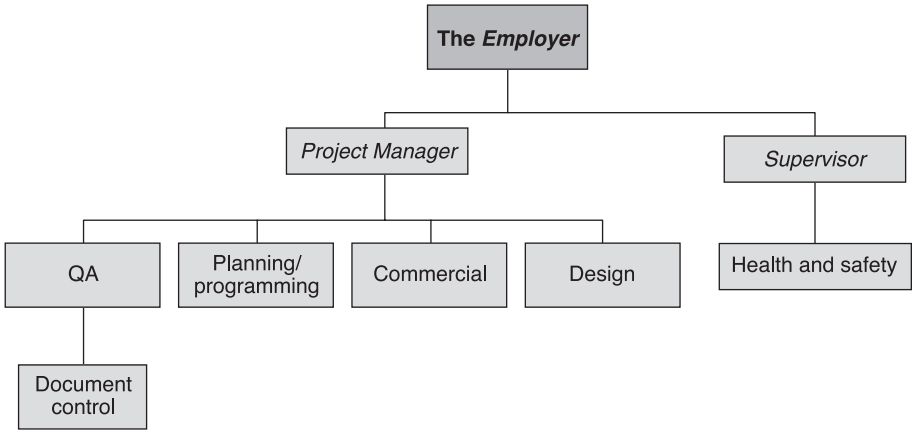

Fig. 2.2. Traditional *Employer*'s team

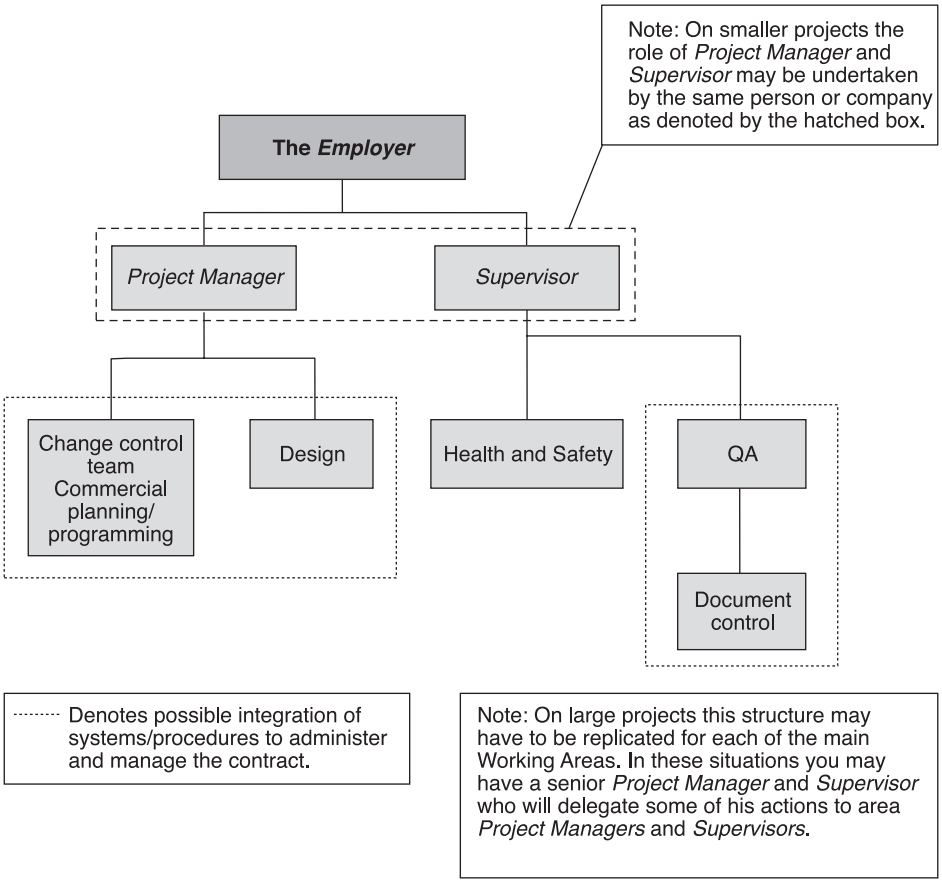

Fig. 2.3. The *Employer*'s team

It could be suggested that for ECC contracts, the structure should be different. Figure 2.3 shows the key players as referred to in the contract and it shows the key functions which either the *Project Manager* will have to undertake or which will be undertaken by other firms of consultants or individuals appointed by the *Employer* or by the *Employer*'s own in-house teams.

2.6.2 Integration of the project team

The ECC places considerable emphasis on the importance of working together. Cooperation and integration are essential both between the Parties under the contract and the various roles.

Figure 2.3 shows how the *Employer*'s team may be organised. The *Project Manager* and the *Supervisor* are the two named representatives of the *Employer* in the contract and therefore the other functions required fall under these two main roles. On small projects the role of *Project Manager* and *Supervisor* may be undertaken by the same individual or company; however, both roles must be undertaken separately.

Figure 2.3 also indicates that even in this structure consideration should be given to the systems/procedures that will be used to administer and manage the contract and that it will be beneficial to integrate or use compatible systems. A good example of this is planning and programming, where a standard recognised package would be used by both Parties. Even this may need to be fine-tuned to ensure that you have compatible versions of the same package, for example version 3.

Also indicated is a change control team. This is a combination of the commercial and planning functions to manage change on the project. On ECC projects these two functions are so closely related that it is a natural progression of the management structure to combine these two functions into one. It could also be argued that the change control team should also include design.

The change control team would deal with

- agreement of financial and time effects of change,
- acceptance of programme revisions,
- assessment of time/cost effects of compensation events,
- determining the validity of compensation events,
- risk management,
- interface management, for example Other packages, utilities, Others working on site, obtaining other approvals,
- insurance.

On target cost/cost reimbursable contracts you might need an audit/procurement team to carry out the following tasks

- auditing Actual Cost (Defined Cost in ECC3),
- assessment of Disallowed Cost,
- payment certificates,
- procurement procedures for external sourced works/items, for example subcontractors,
- forecast of out-turn cost,
- earned value analysis.

Practical experience on ECC projects has thrown up a number of organisational issues, some of which are as follows.

- The disciplined approach to management and the adherence to the timescales can only be achieved by having the right resources available during the currency of the contract.
- Planning/programming capability is essential to the successful administration of an ECC project.
- There are likely to be peaks and troughs of activity with regard to compensation events. The organisational structure of the team needs to be such that you have the flexibility to react to such situations.
- Delegation of powers and authority to act are essential. The *Employer* must be confident of the key players' competencies, capabilities and cultural outlook.
- Change control is better managed through a combined commercial and programme department.

Joint training of the whole team could facilitate bringing the team together so that it operates as a team rather than a bunch of individuals with different goals and agendas. Part of the training could involve ensuring that the individual and team objectives coincide so that an incentive is provided to work as a team.

Communication of the project organisation document will assist in delineating everyone's role within the team so that clear lines of communication are established.

Other aspects to consider are as follows.

- Regular meetings such as progress meetings and early warning/risk reduction meetings.
- Working together on aspects of the contract such as compensation event quotations to avoid 'paper tennis', thereby decreasing the time taken to reach a conclusion and minimising the dissipation of the team's views. Facilitating the working together of the *Employer*, *Contractor*, quantity surveyor (if one is being used on the project) and planner so that the same goal is achieved by all parties.
- Agreeing management systems so that the management of the contract becomes smoother and more acceptable.

The foregoing commentary applies equally to the *Contractor* and Subcontractors. The *Contractor*'s team structure should strive to emulate that of the *Employer.* Figures 2.4 and 2.5 represent examples of an integrated management team.

Figures 2.4 and 2.5 show how an integrated team may be set up. They show that some of the roles and functions could be fulfilled by either the *Contractor*

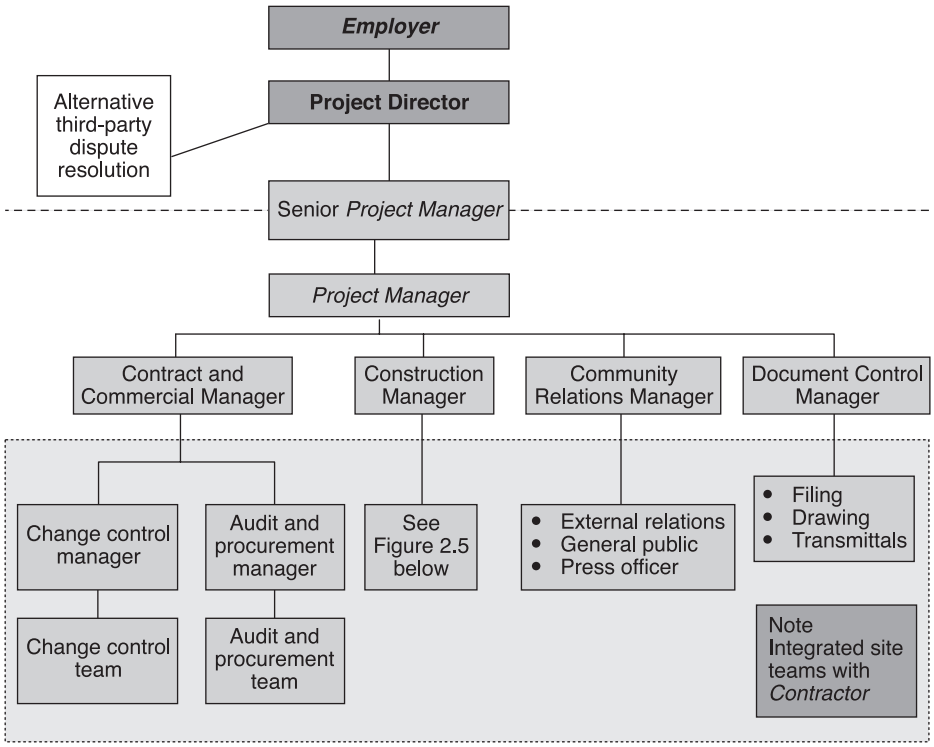

Fig. 2.4. Integrated team – example 1

or *Employer*'s person. In such situations it is still very important to ensure that the lines of communication, authority and responsibility are clearly defined and allocated so that there is still an *Employer/Contractor* relationship in the event of issues or difficulties arising. Therefore the *Employer*'s agents the *Project Manager* and *Supervisor* still have a vital and important role to play in such

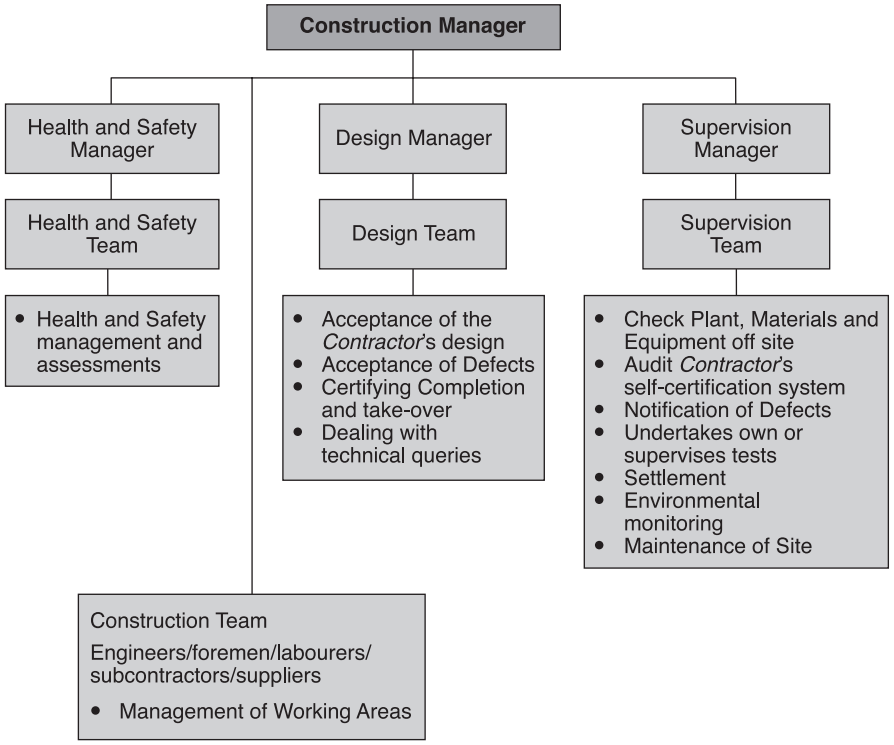

Fig. 2.5. Integrated team – example 2

team structures. You can see from these diagrams that on large projects there are many functions that are required to be undertaken, such as construction management and design. These functions are not discussed or recognised in the ECC. All of these roles are to be fulfilled through the *Project Manager* or the *Supervisor.*

A consequence of an integrated team or partnering, alliancing arrangement or even in the ECC in general is the need to consider the alignment of management and administrative procedures between the parties, for example use of the same programming software, so that programme revisions can be easily communicated between the Parties.

Some clients have modified their contracts such that the actions under the contract are required by a new identified term *Project Team* rather than a *Project Manager.*

2.6.3 Monitoring the team

Continuous improvement remains central to the whole process and performance monitoring enables both parties to focus on challenges arising during the administration of a contract. The ECC lends itself to the production of Key Performance Indicators, this providing no hiding place for poor performance.

The Key Performance Indicators (KPIs) should be decided on at the beginning of the contract as well as the measurement of the KPIs and the regularity of the measurement. As with all measurements, they should be SMART (specific, measurable, achievable/aspirational, realistic and time bound). Examples of KPIs are as follows.

- Client satisfaction
  - product
  - service.
- Quality (defects)
  - number
  - *Contractor* notified
  - speed of correction.
- Predictability
  - cost
  - time.

The secondary Partnering Option X12 includes in clause X12.4 information about incentives and Key Performance Indicators.

In ECC3 the Key Performance Indicators are either included by choosing Option X12, the Partnering Option, or where X12 is not appropriate then Option X20 Key Performance Indicators can be chosen. Secondary Options X12 and X20 are not to be used together.

There is no hiding place – performance is highly visible.

2.7 What does the ECC mean to me?

The following items are merely snapshots of the impact of the ECC on the roles in the contract. The bullet points do not form the boundaries of the duties but rather the beginning.

2.7.1 To the whole project team?

- The ECC is different from traditional contracts. The management of the contract is therefore also different.
- There is no hiding place – it is easy to produce Key Performance Indicators and to highlight areas of non-performance.
- It is very demanding and requires action today not tomorrow.
- Adherence to strict time-scales is required.
- Setting up procedures and systems well in advance of the project commencing is recommended.
- There is an obligation on all parties to give an early warning of anything which may affect:

  - completion
  - quality or
  - cost of the works.
- On ECC contracts the management procedures apply equally to the *Contractor* and the consultant.
- Managing and allocating resources required can be difficult.
- Under Option B and D the *bill of quantities* is not Works Information.
- It should be evident from what has already been written in this book that the ECC requires a synchronisation of the relationships within a contract. The main *Contractor* can only provide good information if he is receiving good information from Subcontractors and the Subcontractors from their sub-subcontractors. This synchronisation will hopefully encourage collaborative arrangements.
- Mutual trust and cooperation underlie all actions.
- **You** make the project a success. Each individual has the power to contribute to or to contaminate the project and it is up to the team members to make the project a success.

2.7.2 To the *Project Manager*?

- Visible management skills are required.
- Set up procedures and systems well in advance of the project commencing.
- Set up a clearly defined team structure.
- Clear lines of communication.
- Delegation of powers.
- There is a need for a competent planner.
- In the instructions to tenderers put in an indicative *activity schedule*.
- Ensure that the tendered *activity schedule* is not front-loaded.
- Assess the amount due.
- Be fair and reasonable at all times.

2.7.3 To the designer?

The ECC document does not refer to the designer; however, a separate role for the *Employer*'s designer can be assumed. The function of the *Employer*'s designer is carried out through the *Project Manager.*

- It is essential that the *Employer*'s design element is complete at the time of tender with Option A and B.
- If using Option C it is important that the Works Information clearly states the design assumptions and any other criteria upon which the *Contractor* should base his price.
- It is essential that the Works Information is competently put together. It is at the heart of the ECC. It specifies and describes the *works* or states constraints on how the *works* are to be provided. It is important to note here that the Works Information is more than just a specification. Where the *Contractor* and the *Employer* both design parts of the *works*, the interfaces should be clearly stated.
- Standard of design liability for the *Employer*'s designer is reasonable skill and care.
- The design can have a big role to play in the success of the project in terms of cost, time and quality, therefore management of the designer is essential.
- Poorly prepared Works Information will lead to what can be best termed 'latent compensation events', which under the contract may give rise to ambiguities and inconsistencies which may lead to compensation events.

> The quality of and completeness of the information provided by the designer is critical to the successful outcome of an ECC contract.

2.7.4 To the *Contractor*?

- Allocate somebody at the beginning of the contract to carry out a thorough review of the Works Information and Site Information with a view to fulfilling the *Contractor*'s obligations described in clauses 16.1 (early warning notifications), 17.1 (notification of ambiguities or inconsistencies between the contract documents) and 19.1(ECC2) or 18.1 (ECC3) (notification of

illegal and impossible requirements). Raise the appropriate notifications and forward to the *Project Manager*.
- Write to the *Project Manager* and ask him if, in accordance with clause 23, the *Project Manager* will be instructing the submission of the particulars of the design for any items of Equipment.
- Decide in good time what parts of the *works* are to be subcontracted and submit names of proposed Subcontractors in good time to the *Project Manager.* Note definition of Subcontractors is wider than general understanding of term.
- Prepare the initial programme (if not submitted with the tender) within the period stated in the Contract Data and include all the information described in clause 31.2. Identify the critical path, time risk allowances and float. Preferably use one of the project management software packages to enable actual progress and the effects of compensation events/notified early warning matters to be shown. Submit revised programmes at the intervals stated in the Contract Data. Do not make the programme so detailed that it becomes unwieldy.
- At the beginning of the Contract write to the *Project Manager* asking him to decide when the first assessment date (for payment purposes) is, as described in clause 50.1.
- Note that under Options A and B of ECC2, only the *Contractor*'s *fee percentage* is added to compensation event quotations. The *Contractor*'s *fee percentage* may be less than the Subcontractor's. Table 2.2 shows an example of the potential problem that could arise.

Table 2.2. Options A and B – Subcontractor's quotation

Compensation event	Subcontractor's quote to *Contractor*	*Contractor*'s quotation
Extra 1000 m of fencing (Cost built up using the schedule of cost components – for illustrative purposes in this simple example assume that the *Contractor*'s and Subcontractor's build-ups are identical. This will not be the case in reality)	£10,000.00	£10,000.00
Tendered *fee percentage* Subcontractor 25%	£2,500.00	Not applicable
Tendered *fee percentage* *Contractor* 10%	Not applicable	£1,000.00
Total	£12,500.00	£11,000.00

The effect on a simple compensation event is that if the *Contractor*'s tendered *fee percentage* in his contract with the *Employer* is lower than the tendered *fee percentage* of his Subcontractor in his subcontract then the *Contractor* will not recoup all his costs for a compensation event, when subcontract works are involved.

This goes against the philosophy of the contract that the *Contractor* should be neither worse nor any better off for a compensation event (i.e. an event which under the contract is at the *Employer*'s risk) occurring. Chapters 1 and 2 of Book 4 look at this issue in more detail.

ECC3 attempts to address this issue by referring to the *subcontracted fee percentage* and the *direct fee percentage* rather than just the *fee percentage*. It would therefore appear that although the *Contractor* is required to use the Shorter Schedule of Cost Components[85] whether work is subcontracted or not, he may include in his Fee the *subcontracted fee percentage* to those parts of the Shorter Schedule of Cost Components that describe the subcontracted work and the *direct fee percentage* to those parts of the work which he carries out himself.

[85]Clause 11.2(22) of ECC3 does not allow a choice of using the full SCC or the Shorter SCC, as was allowed in ECC2.

- Secondary Option M (ECC2) or Option X15 (ECC3) limits the *Contractor*'s liability for the *Contractor*-designed work to reasonable skill and care. If Option M (ECC2) or Option X15 (ECC3) is not chosen, then the standard required is fitness for purpose.
- Negative compensation events – there may be occasions when work may be instructed to be omitted from a contract. It should be remembered that the prices inserted against the tendered *activity schedule* are not used to evaluate the effects of change. The effect of the change is measured as a compensation event, therefore the Schedule of Cost Components and the *fee percentage* is used to evaluate the change and the amount is removed from the total of the Prices.

If the *Contractor* has priced an item or activity too low, and it is then deleted from the contract, more money may be taken out of the contract than the *Contractor* had in for the work (because the Actual (ECC2)/Defined (ECC3) Cost as defined is greater than the price quoted initially).

- No payment is made to the *Contractor* for the cost of preparing compensation events for Options A and B.
- No payment is made for providing the *Project Manager* with a quotation for a proposed change to the *works* which is being considered for Options A and B.
- The *Contractor* does not have to notify the *Project Manager* of Completion; it is for the *Project Manager* to advise when Completion occurs.
- The *Contractor* does not have to submit applications for payment. It is the responsibility of the *Project Manager* to notify the *Contractor* of the amount due.
- In ECC2, the *Contractor* must advise the *Project Manager* within two weeks of becoming aware of it that a compensation event has occurred. If the *Contractor* does not, then he will lose the contractual right to the compensation event. In ECC3, the period of time is eight weeks after becoming aware of the event. ECC3 also adds that if the compensation event should have been notified to the *Contractor* by the *Project Manager*, but was not, then the *Contractor* does not lose his entitlement to a change to the Prices, the Completion Date or a Key Date.
- Many quotations are based on forecast Actual Cost/Defined Cost; these will contain an element of risk, for example winter working.
- The *Contractor* is required to submit details of the effects on the programme of a compensation event, with every compensation event.
- The *Contractor* owns any terminal float on the programme. It is not there for the *Project Manager*'s use. The basis for the assessment of time is 'entitlement' and not 'need' as with other forms of contract.
- The penalty for not submitting an initial Accepted Programme is that 25% of the Price for Work Done to Date can be withheld. The *Project Manager* can make his own assessment of the effect of a compensation event in the absence of a programme. This may work against the *Contractor*. This can also put a heavy burden on the *Project Manager* if the *Contractor* does not perform.
- An *activity schedule* can be thought of as a contract sum analysis except that it is not used to evaluate the effects of change. Its sole use is as a payment schedule – a bit like a milestone schedule. The *Contractor* is only paid for completed activities in Option A.
- The *Contractor* needs to ensure that the Subcontractor is 'back to back' in terms of:
  - providing information for compensation events, programme information, etc.,
  - the Subcontractor's response *period for reply* being shorter than the response *period for reply* in the main contract. The best way to achieve this synchronisation with the Subcontractor is to use the NEC Engineering and Construction Subcontract,
  - the *Contractor*'s ensuring that all subcontracts include a statement that the parties to the contract will act in a spirit of trust and mutual cooperation,

- ensuring that amendments, special conditions of contract, special requirements, secondary Option Z clauses, Contract Data, Works Information, etc. are reflected in the subcontract.

> The ECC does not expect the *Contractor* to have a crystal ball to second guess what it is that the *Employer* wants.

2.7.5 To the *Supervisor*?

- Nearly all of the *Supervisor*'s actions are to be found in sections 4 and 7 of the *conditions of contract*.
- It is important that the *Supervisor* and the team below him are made aware of the importance of keeping good site diaries and records as there are occasions when compensation events will be based on historical costs.
- Ensure that you are familiar with the Works Information, especially testing, commissioning etc.

2.7.6 To the *Employer*?

- Ensure that the *Project Manager* has the authority to act as required in the contract. Remember that the *Project Manager* has to act within stipulated time-scales.
- Ensure that your internal procedures do not hinder the role of the *Project Manager*.
- Ensure that your chosen *Project Manager* has the right skills and competencies and has the authority to act as required by the contract.
- Monitor the performance of your *Project Manager*, consider putting into place performance measurement or Key Performance Indicators, for example response time to communications under the contract.

> It is essential that your *Project Manager* has the right skills and compentencies and has the authority to act.

2.7.7 To the Subcontractor

The discussions in this book with regard to the *Contractor* apply equally to Subcontractors and their sub-subcontractors. One of the great benefits of the NEC suite of contracts is that the clauses in the ECC and ECC Subcontract follow the same pattern and there is a commonality of clauses.

You must ensure that you comply with the requirements of the NEC Subcontract and provide all the notices, programmes, quotations, etc. within the *period for reply.*

If you have your own subcontracts ensure that amendments, special conditions of contract, special requirements, secondary Option Z clauses, Contract Data, Works Information, etc. passed down by the *Contractor* are reflected in your subcontract.

> Good preparation is a key to the successful outcome of a contract. That means involving everyone not just the *Employer* and main *Contractor*.

2.8 Delegation

Both the *Project Manager* and the *Supervisor* may delegate any of their actions,[86] although preferably not to each other, and they can also cancel any delegation.[87] A delegation does not prevent the *Project Manager* or the *Supervisor* from carrying out that duty himself. Before any actions are delegated, the delegating party must first inform the *Contractor* of such delegation. It is also wise to notify for how long the delegation will be in place and also exactly what actions are being delegated.

The person to whom actions are delegated does not need to acquire a specific title under the contract, such as *Project Manager*'s Representative, since each

[86] Clause 14.2.
[87] Clause 14.2.

individual will be the *Project Manager* for the actions they carry out, and similarly for the *Supervisor*.

- Have all letters of delegation been issued ?
- Is everyone clear on their role and responsibilities?

2.9 Replacement of personnel

The *Employer* may replace the *Project Manager* or the *Supervisor* after notifying the *Contractor* of the name of the replacement.[88]

2.9.1 Removing people: clause 24.2

On reading clause 24.2 it can be easily interpreted that the *Contractor* should not have a day to remove the employee, but that removal should take place immediately. In fact, the clause does not rule out the latter action occurring. Contractors should note that this principle will apply to their own subcontracts.

The clause allows the following.

- The *Project Manager* has the right to instruct the *Contractor* to remove any employee, which includes a Subcontractor's employees.
- The *Project Manager* has to provide reasons to the *Contractor* for his instruction to remove an employee, but there is no restriction on those reasons,[89] there is no obligation to behave reasonably and the action does not result in a compensation event.
- The *Contractor* is required to arrange that, after one day, the employee has nothing further to do with the work.
- The *Contractor* does not have one day to remove the employee, however. If the *Project Manager* requires the removal to be immediate, then the *Contractor* is obliged to obey the *Project Manager*. It may not always be reasonable to require immediate removal, however, particularly if the employee concerned is required to hand over documents or other information pertinent to the project.

[88] Clause 14.4.
[89] Note that in general, reasons will tend to pertain to health and safety.

Appendix 2 List of duties

Synopsis

This appendix describes the duties to be undertaken by each of the *Employer*, *Project Manager*, *Contractor* and *Supervisor* throughout the ECC.

A2.1 Core clauses

Clause	*Contractor*	Clause	*Project Manager*	Clause	*Supervisor*	Clause	*Employer*
10.1	To act as stated in the contract and in a spirit of mutual trust and cooperation	10.1	To act as stated in the contract and in a spirit of mutual trust and cooperation	10.1	To act as stated in the contract and in a spirit of mutual trust and cooperation	10.1	To act as stated in the contract and in a spirit of mutual trust and cooperation
13.1	To communicate in a form which can be read, copied and recorded	13.1	To communicate in a form which can be read, copied and recorded	13.1	To communicate in a form which can be read, copied and recorded	13.1	To communicate in a form which can be read, copied and recorded
13.3	To reply to a communication within the *period for reply*	13.3	To reply to a communication within the *period for reply*	13.3	To reply to a communication within the *period for reply*		
13.4	To resubmit a communication which is not accepted within the *period for reply*	13.4	To reply to a communication submitted or resubmitted for acceptance To state reasons for non-acceptance				
13.5	Agree/not agree to extension to *period for reply*	13.5	To notify any agreed extension to the *period for reply*				
		13.6	To issue certificates to the *Employer* and to the *Contractor*	13.6	To issue certificates to the *Project Manager* and to the *Contractor*		
13.7	To communicate notifications separately from other communications	13.7	To communicate notifications separately from other communications				
		13.8	May withhold acceptance of a submission by the *Contractor*				
		14.2	To notify the *Contractor* before delegating any actions or cancelling any delegation	14.2	To notify the *Contractor* before delegating any actions or cancelling any delegation		
		14.3 ECC2	May give an instruction which changes the Works Information				
		14.3 ECC3	May give an instruction which changes the Works Information or a Key Date				
						14.4	To give notice to the *Contractor* before replacing the *Project Manager* or the *Supervisor*

Clause	*Contractor*	Clause	*Project Manager*	Clause	*Supervisor*	Clause	*Employer*
15.1	May submit a proposal for adding to the Working Areas to the *Project Manager* for acceptance	15.1	To reply to the *Contractor*'s proposal for adding to the Working Areas To state reasons for non-acceptance				
16.1	To give early warning of matters with delay, cost or performance implications (ECC3 delay meeting a Key Date)	16.1	To give early warning of matters with delay, cost or performance implications (ECC3 delay meeting a Key Date)				
		16.1 ECC3	To enter early warning matters in the Risk Register				
16.2 ECC2	May give instruction to *Project Manager* to attend early warning meeting may instruct others to attend if Other agrees	16.2 ECC2	May give instruction to *Contractor* to attend early warning meeting may instruct others to attend if Other agrees				
16.2 ECC3	May give instruction to *Project Manager* to attend risk reduction meeting may instruct others to attend if Other agrees	16.2 ECC3	May give instruction to *Contractor* to attend risk reduction meeting may instruct others to attend if Other agrees				
16.3	To cooperate at early warning/risk reduction meetings	16.3	To cooperate at early warning/risk reduction meetings				
		16.4 ECC2	To record proposals considered and decisions taken at early warning meetings To give a copy of the record to the *Contractor*				
		16.4 ECC3	To record decisions made by revising the Risk Register and issuing to *Contractor* To instruct change to Works Information, if required, at the same time as issuing the revised Risk Register				
17.1	To give notice of ambiguities or inconsistencies in the documents	17.1	To give notice of ambiguities or inconsistencies in the documents To give instructions resolving ambiguities or inconsistencies				
18.1 ECC2 or 27.4 ECC3	To act in accordance with health and safety regulations						

Clause	*Contractor*	Clause	*Project Manager*	Clause	*Supervisor*	Clause	*Employer*
19.1 ECC2 or 18.1 ECC3	To give notice of any illegality or impossibility in the Works Information	19.1 ECC2 or 18.1 ECC3	To give instructions changing the Works Information in the event of illegality or impossibility in the Works Information				
		19.1 ECC3	To give an instruction dealing with an event described				
20.1	To Provide the Works in accordance with the Works Information						
21.1	To design such parts of the *work*s as stated in the Works Information						
21.2	To submit particulars of his design for acceptance as required by the Works Information	21.2	To accept particulars of the *Contractor*'s design or to give reasons for non-acceptance				
21.4 ECC2 only	To indemnify the *Employer* against claims for infringements of patents or copyrights in the *Contractor*'s design						
23.1	To submit when instructed particulars of design of items of Equipment	23.1	To accept particulars of the design of Equipment or to give reasons for non-acceptance				
24.1	To employ key persons as stated in the Contract Data or acceptable replacements To submit the name, qualifications and experience of proposed replacement person	24.1	To accept replacement persons proposed by the *Contractor* or to give reasons for non-acceptance				
24.2	To remove any employee on the *Project Manager*'s instructions	24.2	May instruct the *Contractor* to remove an employee having stated his reasons				
25.1	To cooperate with Others in obtaining and providing information To share the Working Areas with Others as stated in the Works Information						

Clause	*Contractor*	Clause	*Project Manager*	Clause	*Supervisor*	Clause	*Employer*
25.2 ECC3	To provide services and other things To pay the cost assessed for not providing facilities and services	25.2 ECC3	To assess the cost incurred if the *Contractor* does not provide the services and other things			25.2 ECC3	To provide services and other things
25.3 ECC3	To pay *Employer*'s cost incurred if work does not meet a condition for a Key Date	25.3 ECC3	To assess the additional cost				
26.2	To submit the names of proposed Subcontractors for acceptance To appoint a Subcontractor only after the *Project Manager* has accepted him	26.2	To accept proposed Subcontractors or to give reasons for non-acceptance				
26.3	To submit the proposed conditions of contract for each subcontract for acceptance To appoint a Subcontractor on the proposed conditions of subcontract only after the *Project Manager* has accepted them	26.3	To accept proposed subcontract conditions or to give reasons for non-acceptance				
27.1	To obtain approval of his own design from Others where necessary						
28.1 ECC2 or 27.2 ECC3	To provide access to the *works* to the *Project Manager*, *Supervisor* and Others						
29.1 ECC2 or 27.3 ECC3	To obey instructions given by the *Project Manager* or the *Supervisor* which are in accordance with the contract						
30.1	To start work on Site on or after the first *possession/access date* To do the work so that Completion is on or before the Completion Date						
30.3 ECC3	To do the work so that the condition stated for each Key Date is met by the Key Date	30.2	To decide the date of Completion To certify Completion within one week of Completion				

Clause	*Contractor*	Clause	*Project Manager*	Clause	*Supervisor*	Clause	*Employer*
31.1	To submit a programme for acceptance within a period stated in the Contract Data						
31.2	To show details in each programme as listed						
		31.3	To accept the *Contractor*'s programme within two weeks of submission or to give reasons for non-acceptance				
32.1	To show details in revised programmes as listed						
32.2	To submit a revised programme when instructed to or as required in the Contract Data	32.2 and 31.3	To accept a revised programme or to give reasons for non-acceptance				
						33.1	To give possession/ access of each part of the site before the later of the *possession/access date* and the date for possession/access shown on the Accepted Programme
33.2 ECC2 only	To provide facilities and services as stated in the Works Information To pay the assessed cost of not providing facilities and services	33.2 ECC2 only	To assess any cost incurred by the *Employer* as a result of the *Contractor* not providing facilities and services as stated in the Works Information			33.2 ECC2 only	To give the *Contractor* access to the Site To provide facilities and services as stated in the Works Information
		34.1	May instruct *Contractor* to stop or not start any work and later to re-start or start it				
						35.2 ECC2 or 35.1 ECC3	To take over the *works* not more than two weeks after Completion
						35.3 ECC2 or 35.2 ECC3	To take over any part of the *works* put into use (subject to exceptions)
		35.4 ECC2 or 35.3 ECC3	To certify within one week the date when the *Employer* takes over any part of the *works*				

Clause	*Contractor*	Clause	*Project Manager*	Clause	*Supervisor*	Clause	*Employer*
		36.1	May instruct the *Contractor* to submit a quotation for acceleration				
		36.1 ECC3 only	To state changes to the Key Dates to be included in the quotation				
36.2	To submit a quotation for acceleration when so instructed or give reasons for not doing so						
40.2	To provide materials, facilities and samples for tests and inspections as stated in the Works Information					40.2	To provide materials, facilities and samples for tests and inspections as stated in the Works Information
40.3	To notify the *Supervisor* of tests and inspections before they start To notify the *Supervisor* of the results of tests and inspections To notify the *Supervisor* before doing work which would obstruct tests or inspections			40.3	To notify the *Contractor* of his tests and inspections before they start and afterwards of the results		
40.4	To correct Defects revealed by tests or inspections and to repeat such tests or inspections						
				40.5	To do tests and inspections without causing unnecessary delay to work or payment		
40.6	To pay the assessed cost incurred by the *Employer* in repeating tests or inspections	40.6	To assess the cost incurred by the *Employer* in repeating a test or inspection after a Defect is found				
41.1	To wait for notification from the *Supervisor* before bringing to the Working Areas those Plant and Materials that the Works Information states are to be inspected or tested before delivery			41.1	To notify the *Contractor* of the results of the test or inspection on Plant and Materials required by the Works Information to be tested or inspected before delivery		

Clause	*Contractor*	Clause	*Project Manager*	Clause	*Supervisor*	Clause	*Employer*
42.1	To carry out searches as instructed by the *Supervisor*			42.1	May instruct the *Contractor* to search for a Defect and to give reasons for searches which are instructed		
42.2	To notify the *Supervisor* of Defects found before the *defects date*			42.2	To notify the *Contractor* of Defects found before the *defects date*		
43.1 ECC2	To correct Defects To correct notified defects before the end of the *defect correction period*						
43.1 ECC3	To correct Defects						
				43.2 ECC2	To issue the Defects Certificate at the later of the *defects date* and the last *defect correction period*		
43.2 ECC3	To correct notified defects before the end of the *defect correction period*						
		43.3 ECC2	To arrange for the *Employer* to give access and use to the *Contractor* of any part of the *works* needed for the correction of Defects after taking over To extend the period for correcting Defects if suitable access and use is not arranged within the *defect correction period*			43.3 ECC2	To give access to the *Contractor* after take over if needed for the correction of a Defect
				43.3 ECC3	To issue the Defects Certificate at the later of the *defects date* and the last *defect correction period*		
		43.4 ECC3	To arrange for the *Employer* to allow access and use to the *Contractor* of any part of the *works* needed for the correction of Defects after taking over			43.4 ECC3	To allow access to the *Contractor* after take over if needed for the correction of a Defect

Clause	*Contractor*	Clause	*Project Manager*	Clause	*Supervisor*	Clause	*Employer*
44.1	May propose to *Project Manager* that Works Information should be changed to avoid correction of a Defect	44.1	May propose to *Contractor* that Works Information should be changed to avoid correction of a Defect				
44.2	To submit a quotation for reduced Prices or an earlier Completion Date or both	44.2	To change the Works Information, the Prices and the Completion Date if a quotation for not correcting Defects is accepted				
45.1 ECC2	To pay the assessed costs of notified Defects not corrected within the *defect correction period* being corrected by others	45.1 ECC2	To assess the cost of having Defects corrected by others if the *Contractor* fails to correct notified Defects within the *defect correction period*				
45.1 ECC3	To pay the assessed costs of notified Defects being corrected by others because they were not corrected within the *defect correction period* even though access was given	45.1 ECC3	To assess the cost of having Defects corrected by others if the *Contractor* fails to correct notified Defects within the *defect correction period* even though access was given				
45.2 ECC3	To pay cost assessed of correcting Defect where access not given	45.2 ECC3	To assess the cost of correcting Defect where *Contractor* not given access to correct it				
		50.1	To assess the amount due for payment at each assessment date To decide the first assessment date to suit the procedures of the parties				
		50.3	To retain one quarter of the Price for Work Done to Date until the *Contractor* has submitted a first programme showing information required				
50.4	May submit application for payment on or before the assessment date	50.4	To consider any application from the *Contractor* when assessing amounts due for payment To give the *Contractor* details of how amounts due have been assessed				

Clause	*Contractor*	Clause	*Project Manager*	Clause	*Supervisor*	Clause	*Employer*
		50.5	To correct any wrongly assessed amount due in a later payment certificate				
51.1	To pay the *Employer* if an interim assessment reduces the amount due from that already paid	51.1	To certify payment within one week of each assessment date			51.1	To pay amounts due to the *Contractor*
						51.2	To pay within three weeks of the assessment date To pay interest on late payment
		51.3	To assess interest to be paid on correcting amounts			51.3	To pay interest on correcting amounts
		51.4 ECC2	To assess interest on amounts that should have been certified when a certificate that should have been issued is not			51.4 ECC2	To pay interest on amounts that should have been certified when a certificate that should have been issued is not
61.1	To put instructions or changed decisions into effect	61.1	To notify the *Contractor* of compensation events which arise from the giving of instructions or changing of earlier decisions To instruct the *Contractor* to submit quotations				
		61.2	May instruct the *Contractor* to submit quotations for a proposed instruction or proposed changed decision				
61.3	To give notice of a compensation event						
		61.4 ECC2	To decide within one week of notification (or such longer period as the *Contractor* agrees) whether the Prices and the Completion Date should be changed when the *Contractor* notifies a compensation event To instruct the *Contractor* to submit quotations for the event				

Clause	*Contractor*	Clause	*Project Manager*	Clause	*Supervisor*	Clause	*Employer*
61.4 ECC3	May notify the *Project Manager* if the *Project Manager* does not notify his decision to the *Contractor* within one week (or longer if agreed)	61.4 ECC3	To decide within one week of notification (or such longer period as the *Contractor* agrees) whether the Prices, the Key Dates and the Completion Date should be changed when the *Contractor* notifies a compensation event To notify the *Contractor* of the decision and instruct the *Contractor* to submit quotations				
		61.5	To decide whether the *Contractor* did not give any early warning of a compensation event which could have been given and to notify the *Contractor* of his decision				
		61.6	To state assumptions for the assessment of compensation events in the event that the effects are too uncertain to be forecast reasonably To notify a correction to any assumptions later found to have been wrong				
62.1 ECC2	To submit alternative quotations for compensation events if instructed to do so May submit quotations for other methods of dealing with the compensation event	62.1 ECC2	May instruct the *Contractor* to submit alternative quotations				
62.1 ECC3	To discuss with the *Project Manager* different ways of dealing with the compensation event that are practicable To submit alternative quotations for compensation events if instructed to do so May submit quotations for other methods of dealing with the compensation event	62.1 ECC3	To discuss with the *Contractor* different ways of dealing with the compensation event that are practicable May instruct the *Contractor* to submit alternative quotations				

Clause	*Contractor*	Clause	*Project Manager*	Clause	*Supervisor*	Clause	*Employer*
62.2 ECC2	To submit details of his assessment with each quotation To include a revised programme with the quotation if the compensation event has affected the programme for the remaining work						
62.2 ECC3	To submit details of his assessment with each quotation To include alterations to the Accepted Programme with the quotation if the compensation event has altered the programme for the remaining work						
62.3	To submit quotations for compensation events within three weeks of being instructed to do so	62.3	To reply to quotations for compensation events within two weeks of the submission				
62.4	To submit revised quotations for compensation events within three weeks of being instructed to do so	62.4	To give reasons to the *Contractor* when instructing the submission of a revised quotation				
		62.5	To extend the time allowed for the submission of quotations and replies if the *Contractor* agrees To notify the *Contractor* of any agreed extensions for the submission of quotations or replies				
62.6 ECC3	May notify the *Project Manager* if the *Project Manager* does not reply to a quotation within the time allowed To state which quotation is to be treated as having been accepted						
63.4 ECC2 or 63.5 ECC3	To assess the event as if the *Contractor* had given an early warning if the *Project Manager* has notified the *Contractor* of his decision under clause 61.5	63.4 ECC2 or 63.5 ECC3	To assess the event as if the *Contractor* had given an early warning if the *Project Manager* has notified the *Contractor* of his decision under clause 61.5				

Clause	*Contractor*	Clause	*Project Manager*	Clause	*Supervisor*	Clause	*Employer*
63.9 ECC3	To take the correction into account when assessing the compensation event for the change to the Works Information	63.9 ECC3	To correct the description of a condition for a Key Date if a change to the Works Information makes the description incorrect To take the correction into account when assessing the compensation event for the change to the Works Information				
		64.1	To assess a compensation event: • if the *Contractor* has not submitted a quotation and details within the time allowed • if the *Project Manager* decides the *Contractor* has not assessed the compensation event correctly • if the *Contractor* has not submitted a required programme • if the *Project Manager* has not accepted the *Contractor*'s latest programme				
		64.2	To assess a compensation event using his own assessment of the programme: • if there is no Accepted Programme • if the *Contractor* has not submitted a revised/altered programme for acceptance as required				
		64.3	To notify the *Contractor* of any assessments made (inclusive of details) of a compensation event within the period allowed to the *Contractor* for his quotation				

Clause	*Contractor*	Clause	*Project Manager*	Clause	*Supervisor*	Clause	*Employer*
64.4 ECC3 only	May notify the *Project Manager* if *Project Manager* did not assess a compensation event within the time allowed To state which quotation is to be treated as having been accepted						
		65.1 ECC2	To implement compensation events by notifying the *Contractor* of accepted quotations or his own assessments				
		65.1 ECC3	To implement compensation events notifying the *Contractor* of accepted quotations; or his own assessments; or a *Contractor*'s quotation treated as having been accepted by the *Project Manager*				
				71.1	To mark Equipment, Plant and Materials outside the Working Areas for payment purposes		
72.1	To remove Equipment from the Site when it is no longer needed						
73.1	To notify the finding of any object of value, historical or other interest Not to move the object without instructions	73.1	To instruct the *Contractor* how to deal with objects of value, historical or other interest				
81.1	To carry risks which are not the *Employer*'s risk from the *starting date* until the Defects Certificate is issued						
82.1	To replace loss or repair damage to the *works*, Plant and Materials until the Defects Certificate is issued						

Clause	*Contractor*	Clause	*Project Manager*	Clause	*Supervisor*	Clause	*Employer*
83.1	To indemnify the *Employer* against claims etc. due to *Contractor*'s risks					83.1	To indemnify the *Contractor* against claims etc. due to *Employer*'s risks
84.1	To provide insurances as required by the contract					84.1	To provide insurances as stated in the Contract Data
85.1	To submit insurance policies and certificates for acceptance as required by the contract	85.1	To accept policies and certificates of insurance submitted by the *Contractor* or to give reasons for non-acceptance				
85.3	To comply with the terms and conditions of insurance policies					85.3	To comply with the terms and conditions of insurance policies
86.1	To pay the costs incurred by the *Employer* in covering insurances which are the *Contractor*'s responsibility					86.1	May insure a risk which the *Contractor* should insure if the *Contractor* does not submit a required policy or certificate
87.1	To accept insurance policies and certificates provided by the *Employer* if they comply with the contract	87.1	To submit to the *Contractor* policies and certificates for insurances to be provided by the *Employer* as required by the contract			87.1	To provide policies and certificates for Insurances to the *Project Manager*
87.3	May insure a risk which the *Employer* should insure if the *Employer* does not submit a required policy or certificate					87.3	To pay the costs incurred by the *Contractor* in covering insurances which are the *Employer*'s responsibility
90.2 ECC2 only	To proceed with matters in dispute which are referred to adjudication as though they were not disputed, until there is a settlement	90.2 ECC2 only	To proceed with matters in dispute which are referred to adjudication as though they were not disputed, until there is a settlement			90.2 ECC2 only	To proceed with matters in dispute which are referred to adjudication as though they were not disputed, until there is a settlement
91.1 ECC2 only	To provide information to the *Adjudicator*					91.1 ECC2 only	To provide information to the *Adjudicator*
94.1 ECC2	To notify the *Project Manager*, giving details of reasons before terminating	94.1 ECC2	To issue a termination certificate when either Party gives notice of termination for reasons complying with the contract			94.1 ECC2	To notify the *Project Manager* giving reasons before terminating
		94.4 ECC2	To certify final payments within 13 weeks of termination				

Clause	*Contractor*	Clause	*Project Manager*	Clause	*Supervisor*	Clause	*Employer*
94.5 ECC2	To do no further work after the termination certificate has been issued						
						96.1 ECC2	May complete *works* himself or employ other people to do so and may use Plant and Materials to which he has title
96.2 ECC2	To leave the Working Areas and remove Equipment on termination					96.2 ECC2	May instruct the *Contractor* to leave the Site, remove any Equipment, Plant and Materials and assign subcontracts May use any Equipment to which he has title
90.1 ECC3	To notify the *Project Manager* and the *Employer*, giving details of reasons before terminating	90.1 ECC3	To issue a termination certificate promptly when either Party gives notice of termination for reasons complying with the contract			90.1 ECC3	To notify the *Project Manager* and the *Contractor*, giving details of reasons before terminating
		90.4 ECC3	To certify final payment within 13 weeks of termination			90.4 ECC3	To make payment within three weeks of the *Project Manager*'s certificate
90.5 ECC3	To do no further work to Provide the Works after the termination certificate has been issued						
						92.1 ECC3	May complete *works* himself and may use Plant and Materials to which he has title
92.2 ECC3	To leave the Working Areas and remove Equipment on termination To remove Equipment promptly from Site when *Project Manager* notifies him that *Employer* no longer needs it	92.2 ECC3	To notify the *Contractor* that the *Employer* no longer needs Equipment to which the *Contractor* has title			92.2 ECC3	May instruct the *Contractor* to leave the Site, remove any Equipment, Plant and Materials and assign subcontracts May use any Equipment to which the *Contractor* has title

A2.2 Main option clauses

A2.2.1 Option A

Clause	*Contractor*	Clause	*Project Manager*
31.4 ECC2	To show the start and finish of activities on the activity schedule on each programme		
31.4 ECC3	To provide information which shows how each activity on the current *activity schedule* relates to the operations on each programme submitted for acceptance		
		36.3 ECC2	To change the Completion Date and Prices when a quotation for acceleration is accepted and to accept the revised programme
		36.3 ECC3	To change the Completion Date, the Prices and the Key Dates when a quotation for acceleration is accepted and to accept the revised programme
54.2	If the *Contractor* changes a planned method of working at his discretion to submit revisions to the *activity schedule* so that it is compatible with the Accepted Programme	54.2	To accept revisions to the *activity schedule* or give reasons for non-acceptance
63.11 ECC2	To assess a compensation event using the Shorter Schedule of Cost Components if the *Project Manager* agrees	63.11 ECC2	May make his own assessments using the Shorter Schedule of Cost Components
63.14 ECC3	To assess a compensation event using rates or lump sums instead of Defined Cost if the *Project Manager* agrees		
		65.4 ECC2	To include changes to the Prices and to the Completion Date when notifying implementation of a compensation event

Clause	*Contractor*	Clause	*Project Manager*
65.4 ECC3	To include changes to the Prices, the Completion Date and to Key Dates when notifying implementation of a compensation event	65.4 ECC3	To include changes to the Prices, the Completion Date and to Key Dates when notifying implementation of a compensation event

A2.2.2 Option B

Clause	*Contractor*	Clause	*Project Manager*
		36.3 ECC2	To change the Completion Date and Prices when a quotation for acceleration is accepted and to accept the revised programme
		36.3 ECC3	To change the Completion Date, the Prices and the Key Dates when a quotation for acceleration is accepted and to accept the revised programme
		60.6 ECC2	To correct mistakes in the *bill of quantities*
		60.6 ECC3	To correct mistakes in the *bill of quantities* which are departures from the rules in the *method of measurement* or due to ambiguities or inconsistencies
63.9 ECC2	To assess a compensation event using a rate or a lump sum in the *bill of quantities* instead of Actual Cost if the *Project Manager* agrees		
63.11 ECC2	To assess a compensation event using the Shorter Schedule of Cost Components if the *Project Manager* agrees	63.11	May make his own assessments using the Shorter Schedule of Cost Components
63.13 ECC3	To assess a compensation event using rates or lump sums instead of Defined Cost if the *Project Manager* agrees	65.4 ECC2	To include changes to the Prices and to the Completion Date when notifying implementation of a compensation event

Clause	*Contractor*	Clause	*Project Manager*
65.4 ECC3	To include changes to the Prices, the Completion Date and to Key Dates when notifying implementation of a compensation event	65.4 ECC3	To include changes to the Prices, the Completion Date and to Key Dates when notifying implementation of a compensation event

A2.2.3 Option C

Clause	*Contractor*	Clause	*Project Manager*
20.3	To advise the *Project Manager* on the practical implications of the design of the *works* and on the subcontracting arrangements		
20.4 ECC2	To prepare forecasts of the total Actual Cost for the whole of the *works* and submit them to the *Project Manager*	20.4 ECC2	To consult with the *Contractor* on the preparation of forecasts of total Actual Costs
20.4 ECC3	To prepare forecasts of the total Defined Cost for the whole of the *works* and submit them to the *Project Manager*	20.4 ECC3	To consult with the *Contractor* on the preparation of forecasts of total Defined Costs
26.4	To submit the proposed contract data for each subcontract for acceptance	26.4	To accept proposed contract data for subcontracts or to give reasons for non-acceptance
31.4 ECC2	To show the start and finish of each activity on the *activity schedule* on each programme		
31.4 ECC3	To provide information which shows how each activity on the current *activity schedule* relates to the operations on each programme submitted for acceptance		
		36.3 ECC2	To change the Completion Date and Prices when a quotation for acceleration is accepted and to accept the revised programme

Clause	*Contractor*	Clause	*Project Manager*
		36.3 ECC3	To change the Completion Date, the Prices and the Key Dates when a quotation for acceleration is accepted and to accept the revised programme
36.5 ECC2 only	To submit a Subcontractor's proposal to accelerate for acceptance	36.5 ECC2 only	To accept a Subcontractor's proposal to accelerate or to give reasons for non-acceptance
		40.7 ECC3 only	To not include amounts due to the *Contractor* for the cost of carrying out the repeat test or inspection
52.2	To keep the described records of costs and payments		
52.3	To allow the *Project Manager* to inspect accounts and records		
		53.1	To assess the *Contractor*'s share of the difference between the total of the Prices and the Price for Work Done to Date
		53.3 ECC2	To assess the *Contractor*'s share at Completion
		53.3 ECC3	To make a preliminary assessment of the *Contractor's* share at Completion
		53.4	To assess the *Contractor*'s share in the final amount due using the final Price for Work Done to Date and the final total of the Prices
54.2	To submit a revision to the *activity schedule* if the *Contractor* changes a planned method of working	54.2	To accept a revision to the *activity schedule* or to give reasons for non-acceptance

Clause	*Contractor*	Clause	*Project Manager*
63.11 ECC2 or 63.15 ECC3	To assess a compensation event using the Shorter Schedule of Cost Components if the *Project Manager* agrees	63.11 ECC2 or 63.15 ECC3	May make his own assessments using the Shorter Schedule of Cost Components
		65.4 ECC2	To include changes to the Prices and to the Completion Date when notifying implementation of a compensation event
65.4 ECC3	To include changes to the Prices, the Completion Date and to Key Dates when notifying implementation of a compensation event	65.4 ECC3	To include changes to the Prices, the Completion Date and to Key Dates when notifying implementation of a compensation event
		97.4 ECC2 or 93.4 ECC3	To assess the *Contractor*'s share after certifying termination

A2.2.4 Option D

Clause	*Contractor*	Clause	*Project Manager*
20.3	To advise the *Project Manager* on the practical implications of the design of the *works* and on the subcontracting arrangements		
20.4 ECC2	To prepare forecasts of the total Actual Cost for the whole of the *works* and submit them to the *Project Manager*	20.4 ECC2	To consult with the *Contractor* on the preparation of forecasts of total Actual Costs
20.4 ECC3	To prepare forecasts of the total Defined Cost for the whole of the *works* and submit them to the *Project Manager*	20.4 ECC3	To consult with the *Contractor* on the preparation of forecasts of total Defined Costs
26.4	To submit the proposed contract data for each subcontract for acceptance	26.4	To accept proposed contract data for subcontracts or to give reasons for non-acceptance
		36.3 ECC2	To change the Completion Date and Prices when a quotation for acceleration is accepted and to accept the revised programme

Clause	*Contractor*	Clause	*Project Manager*
		36.3 ECC3	To change the Completion Date, the Prices and the Key Dates when a quotation for acceleration is accepted and to accept the revised programme
36.5 ECC2 only	To submit a Subcontractor's proposal to accelerate for acceptance	36.5 ECC2 only	To accept a Subcontractor's proposal to accelerate or to give reasons for non-acceptance
		40.7 ECC3 only	To not include amounts due to the *Contractor* for the cost of carrying out the repeat test or inspection
52.2	To keep the described records of costs and payments		
52.3	To allow the *Project Manager* to inspect accounts and records		
		53.1 ECC2	To assess the *Contractor*'s share of the difference between the total of the Prices and the Price for Work Done to Date
		53.5 ECC3	To assess the *Contractor*'s share of the difference between the Total of the Prices and the Price for Work Done to Date
		53.3 ECC2	To assess the *Contractor*'s share at completion
		53.7 ECC3	To make a preliminary assessment of the *Contractor's* share at Completion
		53.4 ECC2	To assess the *Contractor*'s share in the final amount due using the final Price for Work Done to Date and the final total of the Prices

Clause	*Contractor*	Clause	*Project Manager*
		53.8 ECC3	To assess the *Contractor*'s share in the final amount due using the final Price for Work Done to Date and the final Total of the Prices
		60.6 ECC2	To correct mistakes in the *bill of quantities*
		60.6 ECC3	To correct mistakes in the *bill of quantities* which are departures from the rules in the *method of measurement* or due to ambiguities or inconsistencies
63.11 ECC2 or 63.15 ECC3	To assess a compensation event using the Shorter Schedule of Cost Components if the *Project Manager* agrees	63.11 ECC2 or 63.15 ECC3	May make his own assessments using the Shorter Schedule of Cost Components
63.9 ECC2 or 63.13 ECC3	To assess a compensation event using rates or lump sums if the *Project Manager* agrees		
		65.4 ECC2	To include changes to the Prices and to the Completion Date when notifying implementation of a compensation event
65.4 ECC3	To include changes to the Prices, the Completion Date and to Key Dates when notifying implementation of a compensation event	65.4 ECC3	To include changes to the Prices, the Completion Date and to Key Dates when notifying implementation of a compensation event
		97.4 ECC2 or 93.5 ECC3	To assess the *Contractor*'s share after certifying termination

A2.2.5 Option E

Clause	*Contractor*	Clause	*Project Manager*
20.3	To advise the *Project Manager* on the practical implications of the design of the work and on the subcontracting arrangements		

Clause	*Contractor*	Clause	*Project Manager*
20.4 ECC2	To prepare forecasts of the total Actual Cost for the whole of the *works* and submit them to the *Project Manager*	20.4 ECC2	To consult with the *Contractor* on the preparation of forecasts of total Actual Cost
20.4 ECC3	To prepare forecasts of the total Defined Cost for the whole of the *works* and submit them to the *Project Manager*	20.4 ECC3	To consult with the *Contractor* on the preparation of forecasts of total Defined Cost
26.4	To submit the proposed contract data for each subcontract for acceptance	26.4	To accept proposed contract data for subcontracts or to give reasons for non-acceptance
		36.4 ECC2	To change the Completion Date when a quotation for acceleration is accepted and to accept the revised programme
		36.4 ECC3	To change the Completion Date, the Key Dates and the forecast of the total Defined Cost of the whole of the *works* when a quotation for acceleration is accepted and to accept the revised programme
36.5 ECC2 only	To submit a Subcontractor's proposal to accelerate for acceptance	36.5 ECC2 only	To accept a Subcontractor's proposal to accelerate or to give reasons for non-acceptance
52.2	To keep the described records of costs and payments		
52.3	To allow the *Project Manager* to inspect accounts and records	63.11 ECC2 or 63.15 ECC3	May make his own assessments using the Shorter Schedule of Cost Components
63.11 ECC2 or 63.15 ECC3	To assess a compensation event using the Shorter Schedule of Cost Components if the *Project Manager* agrees		
		65.3 ECC2	To include changes to the forecast amount of the Prices and the Completion Date when implementing a compensation event

Clause	*Contractor*	Clause	*Project Manager*
65.3 ECC3	To include changes to the forecast amount of the Prices, the Completion Date and the Key Dates in the notification implementing a compensation event	65.3 ECC3	To include changes to the forecast amount of the Prices, the Completion Date and the Key Dates in the notification implementing a compensation event

A2.2.6 Option F

Clause	*Contractor*	Clause	*Project Manager*
20.2 ECC2	To manage the *Contractor*'s design and the construction and installation of the *works* To subcontract such design, construction and installation as is stated in the Works Information to be subcontracted To do work not stated in the Works Information to be subcontracted himself or to subcontract it		
20.2 ECC3	To manage the *Contractor*'s design, the provision of the Site services and the construction and installation of the *works* To subcontract the *Contractor*'s design, the provision of the Site services and the construction and installation of the *works* except work which the Contract Data states he will do himself		
20.3	To advise the *Project Manager* on the practical implications of the design of the *works* and on subcontracting arrangements		
20.4 ECC2	To prepare forecasts of the total Actual Cost for the whole of the *works* in conjunction with the *Project Manager* and to submit them to the *Project Manager*	20.4 ECC2	To consult with the *Contractor* on the preparation of forecasts of total Actual Cost

Clause	*Contractor*	Clause	*Project Manager*
20.4 ECC3	To prepare forecasts of the total Defined Cost for the whole of the *works* in conjunction with the *Project Manager* and to submit them to the *Project Manager*	20.4 ECC3	To consult with the *Contractor* on the preparation of forecasts of total Defined Costs
20.5 ECC3 only	To agree the change to the price for the work and any change to the Key Dates and Completion Date if the work the *Contractor* is to do himself is affected by a compensation event	20.5 ECC3 only	To agree the change to the price for the work and any change to the Key Dates and Completion Date if the work the *Contractor* is to do himself is affected by a compensation event
			To decide the change if the *Contractor* and the *Project Manager* cannot agree
26.4	To submit the proposed contract data for each subcontract for acceptance	26.4	To accept proposed contract data for subcontracts or to give reasons for non-acceptance
		36.4 ECC2	To change the Completion Date when a quotation for acceleration is accepted and to accept the revised programme
		36.4 ECC3	To change the Completion Date, the Key Dates and the forecast of the total defined Cost of the whole of the *works* when a quotation for acceleration is accepted and to accept the revised programme
36.5 ECC2 only	To submit a Subcontractor's proposal to accelerate for acceptance	36.5 ECC2 only	To accept a Subcontractor's proposal to accelerate or to give reasons for non-acceptance
52.2	To keep the described records of costs and payments		
52.3	To allow the *Project Manager* to inspect accounts and records		

Clause	*Contractor*	Clause	*Project Manager*
		65.3 ECC2	To include changes to the forecast amount of the Prices and the Completion Date when implementing a compensation event
65.3 ECC3	To include changes to the forecast amount of the Prices, the Completion Date and the Key Dates in the notification implementing a compensation event	65.3 ECC3	To include changes to the forecast amount of the Prices, the Completion Date and the Key Dates in the notification implementing a compensation event

A2.3 Dispute resolution procedure option clauses

A2.3.1 ECC3 Option W1 – to be used except in the UK when the Housing Grants, Construction and Regeneration Act 1996 applies

Clause	*Contractor*	Clause	*Project Manager*	Clause	*Adjudicator*	Clause	*Employer*
				W1.1	To decide any dispute referred to him		
W1.2(1)	To appoint the *Adjudicator* under the NEC Adjudicator's Contract current at the *starting date*					W1.2(1)	To appoint the *Adjudicator* under the NEC Adjudicator's Contract current at the *starting date*
				W1.2(2)	To act impartially and decide the dispute as an independent adjudicator and not as arbitrator		
W1.2(3)	To choose an adjudicator jointly or ask the *Adjudicator nominating body* to choose an adjudicator if the *Adjudicator* is not identified in the Contract Data or resigns or is unable to act					W1.2(3)	To choose an adjudicator jointly or ask the *Adjudicator nominating body* to choose an adjudicator if the *Adjudicator* is not identified in the Contract Data or resigns or is unable to act
				W1.2(4)	The replacement *Adjudicator* decides the dispute		
				W1.2(5)	To not be liable to the Parties for any action or failure to take action unless in bad faith		

Clause	*Contractor*	Clause	*Project Manager*	Clause	*Adjudicator*	Clause	*Employer*
W1.3(1)	May refer a dispute about an action of the *Project Manager* or the *Supervisor*; or the *Project Manager* or the *Supervisor* not having taken an action					W1.3(1)	May refer a dispute about a quotation for a compensation event which is treated as having been accepted
	May refer any other matter						May refer any other matter
		W1.3(2)	May extend times for notifying and referring a dispute				
W1.3(4)	May refer a subcontract dispute at the same time as the main contract referral						
				W1.3(5)	May review and revise actions, ascertain facts, request a party to submit more information, issue instructions required to reach his decision		
				W1.3(7)	To make assessments in the same way as a compensation event		
				W1.3(8)	To decide the dispute by notifying the Parties and the *Project Manager*		
W1.3(9)	To proceed as if the matter disputed were not disputed	W1.3(9)	To proceed as if the matter disputed were not disputed			W1.3(9)	To proceed as if the matter disputed were not disputed
W1.4(1)	To not refer any dispute to the *tribunal* unless it has been referred to the *Adjudicator*		(The *Supervisor* also has a duty to proceed as if the matter were not disputed)			W1.4(1)	To not refer any dispute to the *tribunal* unless it has been referred to the *Adjudicator*

A2.3.2 ECC3 Option W2 – to be used in the UK when the Housing Grants, Construction and Regeneration Act 1996 applies

Clause	*Contractor*	Clause	*Project Manager*	Clause	*Adjudicator*	Clause	*Employer*
W2.1(1)	May refer a dispute at any time to the *Adjudicator*			W2.1(1)	To decide any dispute referred to him	W2.1(1)	May refer a dispute at any time to the *Adjudicator*
W2.2(1)	To appoint the *Adjudicator* under the NEC Adjudicator's Contract current at the *starting date*					W2.2(1)	To appoint the *Adjudicator* under the NEC Adjudicator's Contract current at the *starting date*

Clause	*Contractor*	Clause	*Project Manager*	Clause	*Adjudicator*	Clause	*Employer*
				W2.2(2)	To act impartially and decide the dispute as an independent adjudicator and not as arbitrator		
W2.2(3)	To choose an adjudicator jointly or ask the *Adjudicator nominating body* to choose an adjudicator if the *Adjudicator* is not identified in the Contract Data or resigns or is unable to act					W2.2(3)	To choose an adjudicator jointly or ask the *Adjudicator nominating body* to choose an adjudicator if the *Adjudicator* is not identified in the Contract Data or resigns or is unable to act
				W2.2(4)	The replacement *Adjudicator* decides the dispute		
				W2.2(5)	To not be liable to the Parties for any action or failure to take action unless in bad faith		
W2.3(1)	To give notice of the adjudication to the *Employer* before referring a dispute to the *Adjudicator*			W2.3(1)	To notify the Parties whether he is able to decide the dispute	W2.3(1)	To give notice of the adjudication to the *Contractor* before referring a dispute to the *Adjudicator*
W2.3(3)	May refer a subcontract dispute at the same time as the main contract referral						
				W2.3(4)	May review and revise actions, ascertain facts, request a party to submit more information, issue instructions required to reach his decision		
				W2.3(7)	To make assessments in the same way as a compensation event		
				W2.3(8)	To decide the dispute by notifying the Parties and the *Project Manager*		
W2.3(9)	To proceed as if the matter disputed were not disputed	W2.3(9)	To proceed as if the matter disputed were not disputed			W2.3(9)	To proceed as if the matter disputed were not disputed

Clause	*Contractor*	Clause	*Project Manager*	Clause	*Adjudicator*	Clause	*Employer*
W2.4(1)	To not refer any dispute to the *tribunal* unless it has been referred to the *Adjudicator*					W2.4(1)	To not refer any dispute to the *tribunal* unless it has been referred to the *Adjudicator*

A2.4 Secondary option clauses

A2.4.1 ECC2 Option G – Performance bond ECC3 Option X13

Clause	*Contractor*	Clause	*Project Manager*
G1.1 ECC2 or X13.1 ECC3	To give the *Employer* a performance bond for the amount stated in the Contract Data and in the form set out in the Works Information	G1.1 ECC2 or X13.1 ECC3	To accept the *Contractor*'s performance bond or to give reasons for non-acceptance

A2.4.2 ECC2 Option H – Parent company guarantee ECC3 Option X4

Clause	*Contractor*	Clause	*Project Manager*
H1.1 ECC2 or X4.1 ECC3	To give the *Employer* a parent company guarantee in a form set out in the Works Information		

A2.4.3 ECC2 Option J – Advanced payment to the *Contractor* ECC3 Option X14

Clause	*Contractor*	Clause	*Project Manager*	Clause	*Supervisor*	Clause	*Employer*
						J1.1 ECC2 or X14.1 ECC3	To make the advanced payment of the amount stated in the Contract Data
		J1.2 ECC2 or X14.2 ECC3	To accept an advanced payment bond or to give reasons for non-acceptance			J1.2 ECC2 or X14.2 ECC3	To make the advanced payment within four weeks of the Contract Date or receipt of the advanced payment bond
J1.3 ECC2 or X14.3 ECC3	To repay advanced payments to the *Employer* in instalments as stated in the Contract Data						

A2.4.4 ECC2 Option P – Retention ECC3 Option X16

Clause	*Contractor*	Clause	*Project Manager*
		P1.2 ECC2 or X16.2 ECC3	To halve the amount retained in the assessment made at Completion of the whole of the *works* or in the next assessment made after the *Employer* has taken over the whole of the *works* if this is before Completion of the whole of the *works* To retain nothing after the Defects Certificate has been issued

A2.4.5 ECC2 Option R – Delay damages ECC3 Option X7

Clause	*Contractor*	Clause	*Project Manager*	Clause	*Supervisor*	Clause	*Employer*
R1.1 ECC2 or X7.1 ECC3	To pay delay damages as stated in the Contract Data from the Completion Date until Completion or take over					R1.2 ECC2 or X7.2 ECC3	To repay any overpayment of delay damages with interest
		X7.3 ECC3	To assess the benefit to the *Employer* of taking over part of the *works* before Completion as a proportion of taking over all the *works* not previously taken over				

A2.4.6 ECC2 Option S – Low performance damages ECC3 Option X17

Clause	*Contractor*
S1.1 ECC2 or X17.1 ECC3	To pay low performance damages as stated in the Contract Data for Defects included in the Defects Certificate showing low performance

A2.4.7 ECC2 only Option V – Trust Fund

Clause	*Contractor*	Clause	*Employer*
		V2.1	To establish the Trust Fund within one week of the Contract Date
V2.3	To inform suppliers of the terms of the trust deed and the appointment of the *Trustees* To arrange that Subcontractors ensure that their suppliers and subcontractors are similarly informed		

A2.4.8 Option X12 Partnering

There are various actions on the Partners and the Core Group. Since these are defined, they cannot at this stage be allocated as the *Employer* and the *Contractor*. If they were to be, however, there are actions on the *Client*, the Partners and the Core Group.

A2.4.9 ECC3 Option X18 – Limitation of liability

Clause	*Contractor*
X18.5	To not be liable to the *Employer* for any matter to do with the contract which is notified to the *Contractor* after the *end of liability date*

A2.4.10 ECC3 Option X20 – Key Performance Indicators (not used with Option X12)

Clause	*Contractor*	Clause	*Project Manager*	Clause	*Employer*
X20.2	To report to the *Project Manager* from the *starting date* until the Defects Certificate has been issued his performance against each Key Performance Indicator at the intervals stated in the Contract Data				
X20.3	To submit to the *Project Manager* his proposals for improving performance if his forecast final measurement against a Key Performance Indicator will not achieve the target stated in the Incentive Schedule				
				X20.5	May add a Key Performance Indicator and associated payment to the Incentive Schedule but he may not delete or reduce a payment stated in the Incentive Schedule

A2.4.11 ECC2 Option Y(UK)2: The Housing Grants, Construction and Regeneration Act 1996

Clause	*Contractor*	Clause	*Project Manager*	Clause	*Employer*
		Y2.2	To certify a payment on or before the date on which a payment becomes due	Y2.2	To make payment on or before the final date for payment
				Y2.3	To notify the *Contractor* if withholding payment is intended
Y2.5	To follow the detailed procedure for the avoidance and settlement of disputes	Y2.5	To follow the detailed procedure for the avoidance and settlement of disputes	Y2.5	To follow the detailed procedure for the avoidance and settlement of disputes

A2.4.12 ECC3 Option Y(UK)2: The Housing Grants, Construction and Regeneration Act 1996

Clause	*Contractor*	Clause	*Employer*
Y2.3	To notify the *Employer* if withholding payment is intended and state the amount to be withheld and the reason	Y2.3	To notify the *Contractor* if withholding payment is intended and state the amount to be withheld and the reason

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Terms in *italics* are identified in Contract Data and defined terms have capital initial letters. Page numbers in *italics* refer to diagrams or illustrations.

